

Pioneer

ELITE



ELITE AV Receivers

Images for illustrative purposes only

Advanced Multi-Channel Stereophonic Philosophy

[minamoto]

- Digital Class D<sup>3</sup> Amplifier (Direct Energy HD)
- Audio Scaler
  - Hi-bit32 Audio Processing
  - Up-Sampling (192 kHz/32-bit)
  - Digital Filter
- Low Leakage Flux Power Transformer
- Hi-bit24 Audio Processing

[waza]

- MCACC Auto Room Tuning
  - Phase Control
- Advanced MCACC Auto Room Tuning
  - Auto Phase Control Plus
  - Speaker Polarity Check
  - Standing Wave Control
  - Subwoofer EQ
- MCACC Pro Auto Room Tuning
  - Independent Dual Subwoofer Output
  - Full Band Phase Control
  - Precision Distance

[tamashi]

- AIR Studios Sound Tuning

Audio Technologies

- ESS SABRE<sup>32</sup> Ultra DAC
- Advanced Sound Retriever
- Auto Sound Retriever
- Auto Sound Retriever for ARC
- Sound Retriever Link
- Sound Retriever AIR
- Auto Level Control
- PQLS with HDMI

Video Technologies

- Ultra HD (4K/60p) Upscaling
- Ultra HD (4K/60p) Pass Through
- Stream Smoother
- Stream Smoother Link
- Advanced Video Adjust
- Highly-Precise I/P Conversion
- Triple HD Video Noise Reduction
- Deep Color
- "x.v.Color"

Audio Formats & Licenses

- Dolby Atmos<sup>®</sup> Upgradable
- Dolby TrueHD
- Dolby TrueHD Loudness Management
- DTS-HD Master Audio
- DTS Neo:X
- DTS Neo:X | 7.1
- Hi-Res Audio File Playback via USB/Network
- Multi-Channel Audio File Playback via USB/Network
- Native DSD Playback via USB-DAC with DoP Transmission
- DSD Music File Playback via USB
- DSD Disc (SACD) Playback via HDMI
- Various Music File Playback via USB/Network/HDMI
- Variable File Play Action
- Gapless Playback

Sophisticated Listening Modes

- Various Speaker Settings
- Wide Surround
- Dolby Pro Logic IIz
- Virtual Speakers
- Virtual Depth
- 9ch Speaker Configurations
- Pre-Amp Mode

- Advanced Surround Modes
- Front Stage Surround Advance
- Optimum Surround

Connectivity

- USB-DAC
- HDMI<sup>®</sup> (4K@60, 3D, ARC)
- Made for iPod and iPhone
- Digital Audio from iPod/iPhone via USB
- Android<sup>™</sup> Audio/Video Playback with MHL<sup>™</sup>
- Front USB Input

Network Features

- Apple AirPlay Certified
- DLNA Certified<sup>™</sup> (1.5)
- HTC Connect<sup>™</sup> Certified
- Compatible with Windows<sup>®</sup> 8.1/Windows<sup>®</sup> 8
- Internet Radio (vTuner)
- Pandora<sup>®</sup> Internet Radio
- Spotify<sup>®</sup> Digital Music-Streaming Service Ready
- Roku Ready<sup>®</sup>

Advanced Control

- Ready for iControlAV5
  - AV SCALER
  - STATUS VIEWER
  - CURSOR
  - SOUND EXPLORER
  - PUSH PLAYER
  - ECO MANAGER
- Bluetooth Ready
- Built-in AVNavigator/AVNavigator for iPad
- Wireless LAN Converter Ready
- Powered HDMI ZONE Out (Powered HDZONE)
- Multi-Zone
- HDBaseT Compatible (HDMI Extension via LAN)
- Control with HDMI
- 2014 Pioneer PC Setup
- Network Setup via Web Control
- Standby Pass-Through without CEC
- HDMI Standby Input Switching
- Auto Power Down
- Power Save for HDMI Standby Through
- Simple Overlay OSD
- GUI

Construction

- Advanced Direct Construction
- 3D Space Frame Construction
- Rigid Trans-Stabilizer
- Independent Power Supply System
- Clean Grounding and High-Grade Parts

\* New features in blue

Applicable models displayed in icons:

- 89 ..... SC-89
- 87 ..... SC-87
- 85 ..... SC-85
- 82 ..... SC-82
- 81 ..... SC-81

For the U.S. and Canada

Advanced Multi-Channel Stereophonic Philosophy

89 87 85 82 81

Our top-line AV receivers contain only high-grade materials that deliver precise performance, all in order to accomplish our objective — truthful expression of the artist’s intent. The soundstage is purified to give as close to the original artistic expression, while expertise of professional recording engineers is applied for a thorough sound tuning.



**[minamoto]**  
source/origin/foundation

When something is created, that upon which it is based. Gathering the materials essential for creating things.

Example:  
A true masterpiece, made from the finest components.



**[waza]**  
skill/technique/ability

The methods and techniques used to process things. Overcoming challenges with knowledge and experience.

Example:  
The skill of a craftsman lives on in his masterpiece.

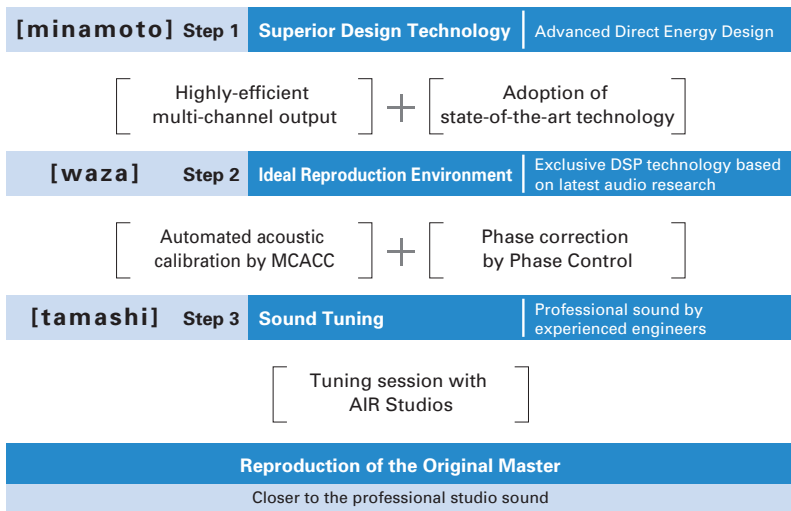


**[tamashi]**  
soul/spirit/will

Obsession or zeal. Or even emotion. Paying careful attention to details, and refining the value of things by human hands.

Example:  
Within a masterpiece lies a spirit that moves people.

Advanced Multi-Channel Stereophonic Philosophy  
Pioneer's 3-step technology for reproducing studio master sound





**[minamoto]**  
source/origin/foundation

### Digital Class D<sup>3</sup> Amplifier (Direct Energy HD Amplifier)

89 87 85 82 81

The Direct Energy HD Amplifier has further evolved as Digital Class D<sup>3</sup> Amplifier to meet the needs of the latest HD content. With our MOSFET, the Direct Power FET, a simple, high-power solution is provided to fully enjoy today's AV entertainment. This year, the digital circuit power supply has been redesigned on all models, to provide a clean electric current with reduced noise.

#### High-Power Simultaneous Multi-Channel Drive

With class AB amplifiers, driving all channels in full power is only possible for a short time, at around 300 W to 400 W power output. Pioneer's Digital Class D<sup>3</sup> Amplifier has plenty of allowance to simultaneously drive 9 channels at 760 W (SC-85) to 850 W (SC-89) power output, letting you fully enjoy dynamic scenes.

#### Eco-Friendly

The power consumption of the Digital Class D<sup>3</sup> Amplifier is exceedingly lower than analog amplifiers — letting you save energy without compromising performance.

#### High Efficiency

The Digital Class D<sup>3</sup> Amplifier has been designed with a simple structure to take a straight signal path, resulting in improved sound quality.

#### Low Heat Generation

The simple form of the Direct Power FET has the advantage of improved thermal characteristics. In addition to the upper-side heat dissipation from the heat sink, the circuit board's heat radiation feature is also utilized for downward heat dissipation, providing efficient cooling for a superior performance.

#### Quick-Response Sound

The Direct Power FET is directly connected to the print circuit board without any wiring. This simple structure maximizes audio performance by reduced noise and improved switching, offering a quick-responding sound, perfect for digital content playback.

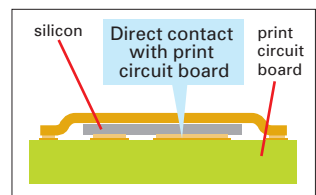
#### Improved Circuit Design

On the top two models, dedicated ICs are lavishly used on the circuit in pursuit of ideal sound. The operational amplifier IC for processing small signal is set apart from the amplifying section to prevent mutual interference. This allows clear signal to be transmitted to the Direct Power FET. As for the SC-85/SC-82/SC-81, they adopt a compact integrated IC with space merit. The directly coupled IC reduces signal loss and provides precise signal transmission.



Class D<sup>3</sup> Amplifier Assy

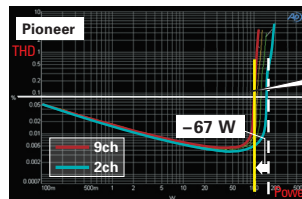
#### Direct Power FET



Direct Power FET features a simple structure with superior heat dissipation

#### Simultaneous Power Output for Pioneer's Class D Amplifier (9ch)

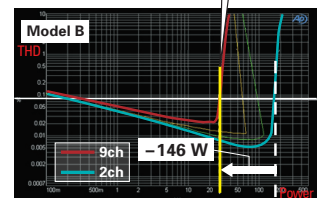
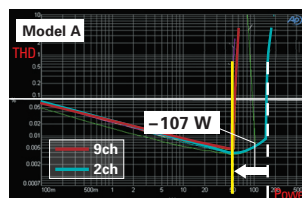
##### Pioneer Class D Digital Amp



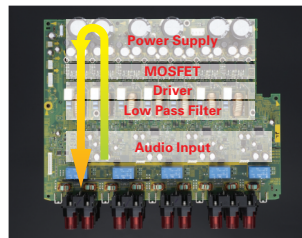
Pioneer—only one keeping up high power with multi-channel output

Other Models—high power for 2-ch specification, but output drops with actual 9-ch drive

##### General Class AB Analogue Amp

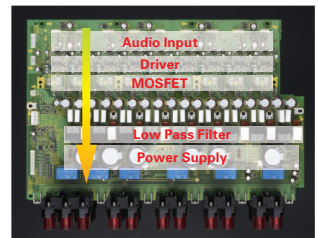


#### Previous signal path



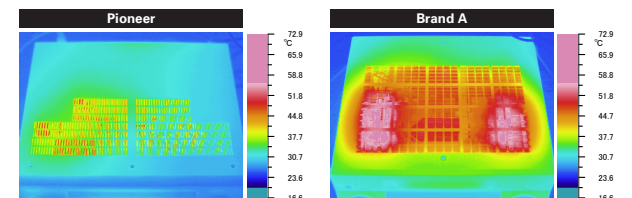
Signal path length approx: 10-5/8"

#### New model's signal path

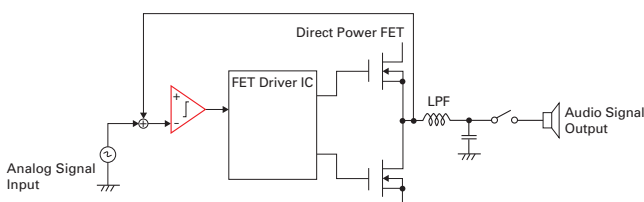


Signal path length approx: 7-7/8"

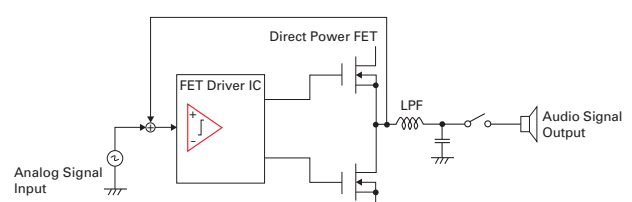
#### Thermal View Comparison of Top Panel



#### SC-89/SC-87 Amplifier Circuit Configuration



#### SC-85/SC-82/SC-81 Amplifier Circuit Configuration

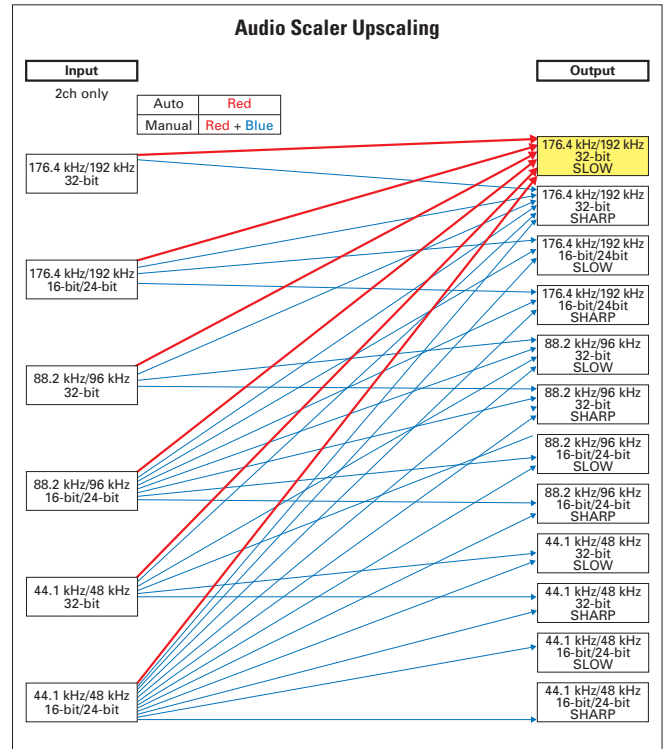


Advanced Multi-Channel Stereophonic Philosophy  
Audio Technologies  
Video Technologies  
Audio Formats & Licenses  
Sophisticated Listening Modes  
Connectivity  
Network Features  
Advanced Control  
Construction

### Audio Scaler

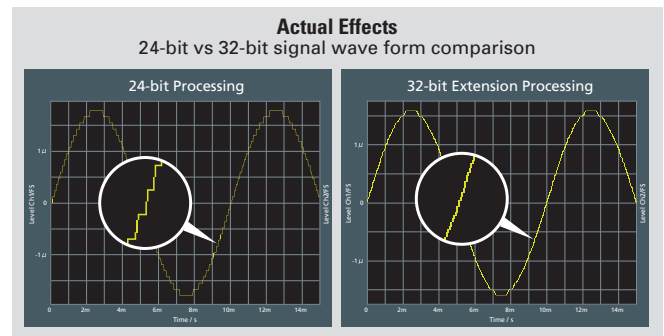
89 | 87 | 85

Pioneer's latest Audio Scaler technology consists of Hi-bit32, Up-Sampling, and Digital Filter. The Hi-bit32 Audio Processing improves resolution and density, while the Up-Sampling reduces noise. Then the Digital Filter creates soft, natural sound and improves transient response and pre-echo effect. The three features integrate to upscale all 2-channel audio content up to 176.4 kHz/192 kHz 32-bit playback—176.4 kHz/192 kHz 32-bit by auto, and selectable from 176.4/192, 88.2/96, 44.1/48 kHz frequency, 32/24-bit rate by manual setting—offering realistic reproduction of the content. The features can be controlled on the Sound Explorer screen of the iControlAV5 app.



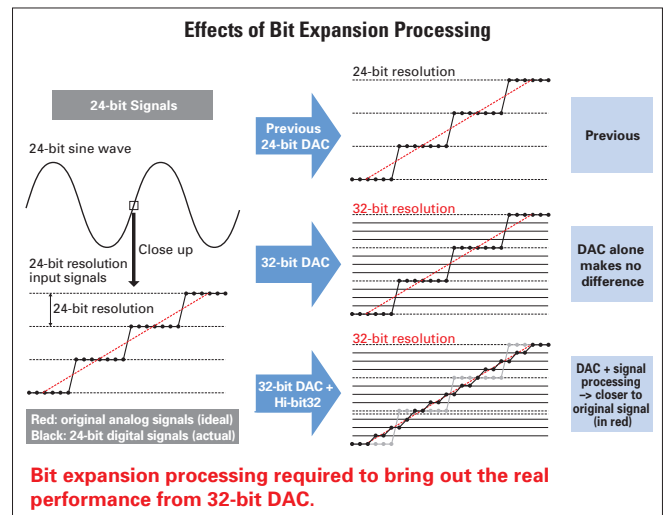
### Hi-bit32 Audio Processing

The technology works to create undistorted sound, bringing out the best in the 32-bit DAC. The 32-bit DAC hardware alone does not reproduce better sound. Maximum performance is gained by applying the Hi-bit32 processing to expand signal resolution, creating more detailed, smooth sound, closer to the original analog signal. Hi-bit32 Audio Processing also increases the sound pressure for a tactile listening experience, and the more channels you have, the more impressive it becomes. It is effective for multi-channel content on DVD/Blu-ray Disc as well as CD audio, and works with any disc player.



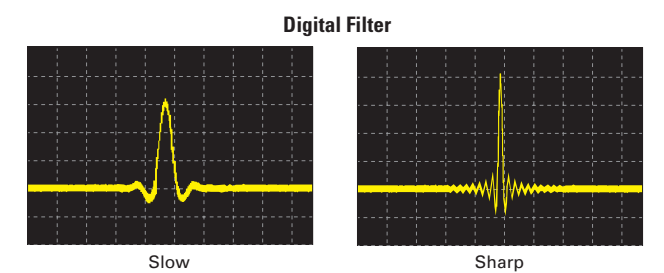
### Up-Sampling (192 kHz/32-bit)

The Up-Sampling feature of the Audio Scaler upgrades the sound with reduced noise, providing maximum quality audio playback of up to 192 kHz/32-bit.



### Digital Filter

The world's first digital filter for AV receivers let you enjoy two types of sound characters by switching the DAC — "Slow" for soft and warm, and "Sharp" for solid and tight sound.



### Low Leakage Flux Power Transformer

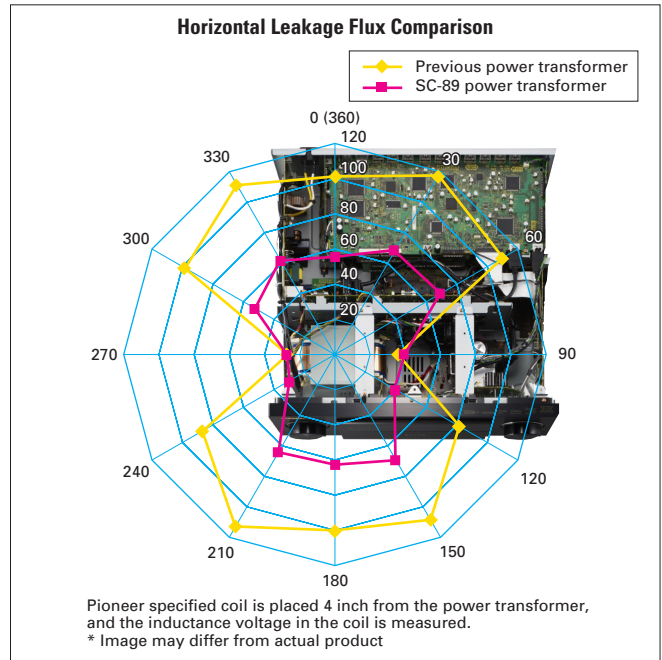
89

The power transformer features minimum leakage flux, ensuring low noise with increased S/N ratio.

### Hi-bit24 Audio Processing

82 81

Combined with the 24-bit DAC, maximum performance is gained by applying the signal processing to expand signal resolution, creating more detailed, smooth sound and increased sound pressure. The technology is effective for multi-channel content on CD/DVD, PC files less than 24-bit and works with any disc player.



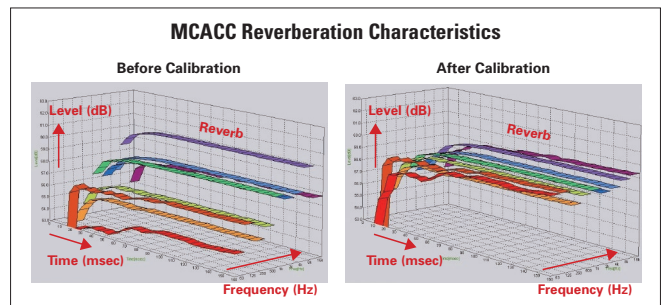
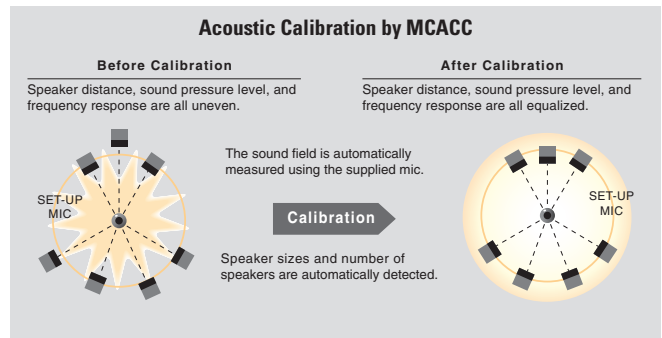
### MCACC Auto Room Tuning

89 87 85 82 81

Create the optimum acoustic environment with Pioneer's MCACC (Multi-Channel Acoustic Calibration System), developed with the expertise of professional recording studios. The system — complete with custom microphone — automatically compensates for differences in speaker size, level and distance, and equalizes response.

### Phase Control

When amplifying multi-channel audio signals, receivers use a Low Pass Filter (LPF) to process low-frequency signals for subwoofer output. This causes "phase lag" — a delay of approximately 5 msec — of the low-frequency signals compared to the main channel signals. As a result, the delayed bass makes the sound lack synchronization. Pioneer's Phase Control technology effectively eliminates phase lag and significantly improves the multi-channel sound without any extra operation.



### Advanced MCACC Auto Room Tuning

89 87 85 82 81

The Advanced MCACC uses a 3D calibration method with even more precise measurements by including the time axis. The AV receivers also feature a speaker polarity check for detecting misconnected cables, and a reverb measurement display for showing before/after calibration results. The system automatically measures crossover frequency — much easier than the previous manual setting — and also lets you check the measured data by MCACC application in the AVNavigator. The subwoofer EQ feature has been newly added, for auto or manual EQ adjustments.



#### Auto Phase Control Plus

During Blu-ray Disc/DVD/multi-channel file playback, Auto Phase Control Plus makes real-time analysis of the phase difference between the LFE (low frequency effect) and the main signals, and automatically compensates the gap. Elimination of phase lag enhances strong bass and clear high-frequency sound — especially effective for audio content such as live performance and music video clips.  
 \* Effectiveness depends on content



#### Speaker Polarity Check

The Advanced MCACC will check the speaker polarity for proper connection. "Reverse Phase" will be displayed on the GUI screen if the speaker's wiring (+ and -) is inverted.

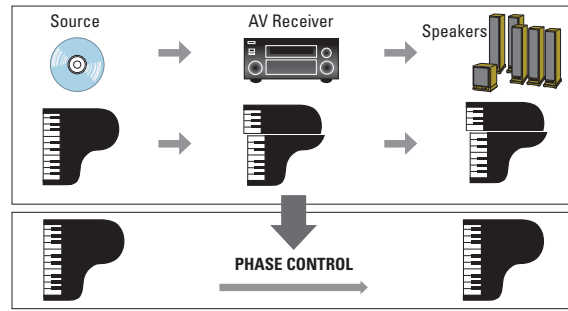
#### Standing Wave Control

Acoustic standing waves occur when the sound waves from your speaker resonate with those reflected off the walls. Depending on the speaker placement, your listening position or the shape of the room, standing waves have a negative effect on the overall sound, especially in certain lower frequencies. Standing Wave Control effectively decreases resonance and prevents inaccurate EQ-setting calibration.

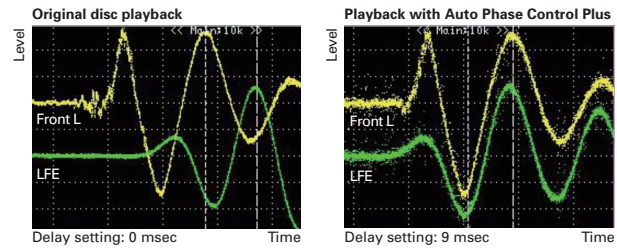
#### Subwoofer EQ

This new EQ feature allows you to adjust the subwoofer tone. For Auto MCACC, the subwoofer EQ is automatically adjusted with EQ type ALL CH ADJ, while manual adjustment is available with EQ type SYMMETRY and FRONT ALIGN. As with other EQ, the manual adjustment can be done on the AV receiver's GUI.

### The "Phase Control" Compensates for the Delay of Low-Frequency Sound

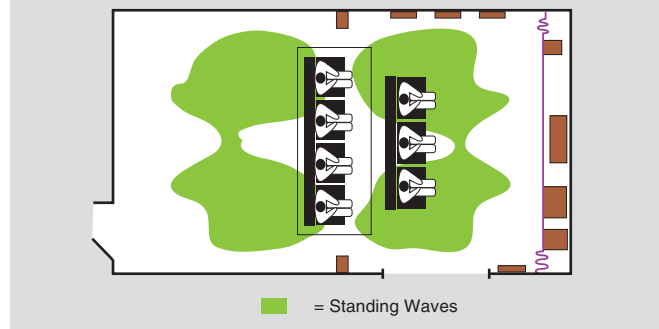


#### Effect of Auto Phase Control Plus (data comparison)



Superior sound provided by compensating the lag in the subwoofer channel on the disc.

#### Standing Wave in a Typical Listening Room



### MCACC Pro Auto Room Tuning

89 87 85

On top of Advanced MCACC features, MCACC Pro goes a step further by analyzing the phase and group delay characteristics due to network filtering to precisely control phase differences between speakers. This correction is also performed between channels, providing a smooth flow of sound as if all delivered from the same type of speaker. Other features include independent correction for dual subwoofers, and speaker position adjustment in 1-millimeter increments. MCACC Pro corrects phase differences in all ranges and all channels, from phase difference in the original audio material to the sound emitted from the speakers.



#### Independent Dual Subwoofer Output

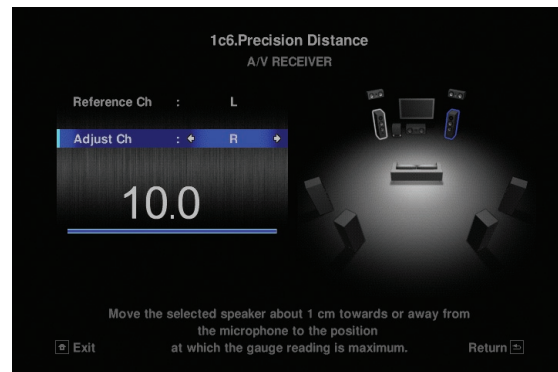
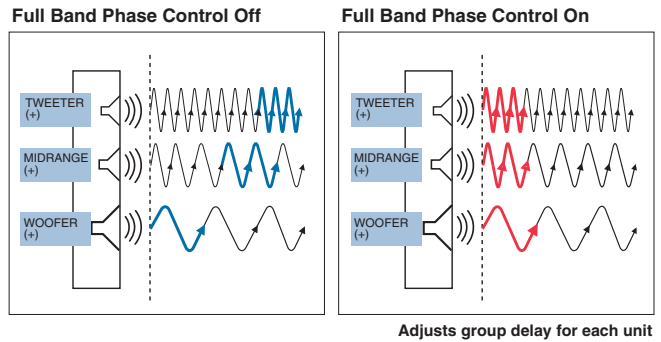
When connecting an additional subwoofer to increase the bass, the two subwoofers may not be at a same distance. In such a case, cancelling out of the bass may occur and prevent you from perceiving the full effect of the additional subwoofer. MCACC Pro supports independent adjustment for each subwoofer, offering optimal performance for a dual-subwoofer setup. You can enjoy free placement of your subwoofers.

#### Full Band Phase Control

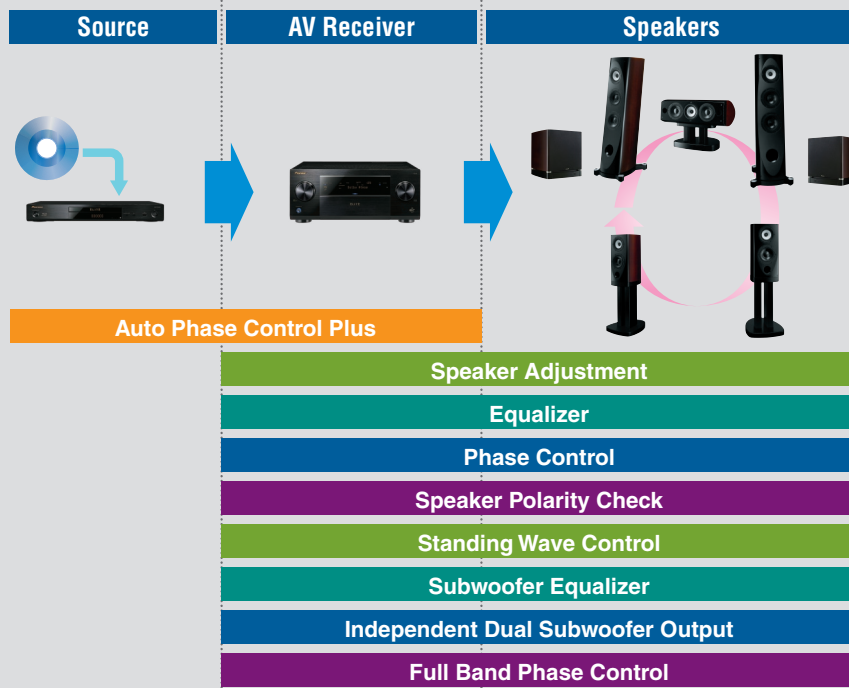
The further advanced Full Band Phase Control technology focuses on the group delay in the speaker network filter, and compensates with special digital signal processing (DSP), to adjust the phase of each unit as well as the group delay for each speaker. Full Band Phase Control gives multi-range speakers the sound coherence of full-range speakers, while retaining the wide frequency range advantage.

#### Precision Distance\*

Precision Distance is an innovative, world's first feature for making millimeter-level manual adjustments to speaker distance. You can easily duplicate a skilled installer's precise positioning with the help of a level gauge shown on the display.  
 \* SC-89 only



### MCACC—Acoustic Field Correction at All Levels





[tamashi]  
soul/spirit/will

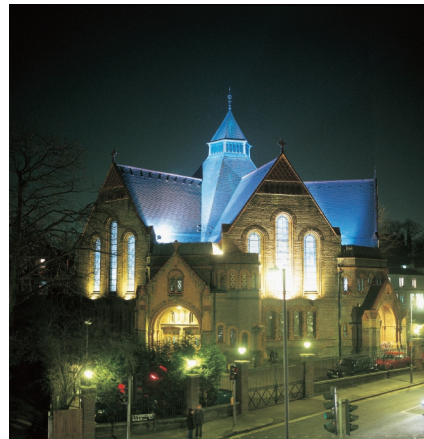
### AIR Studios Sound Tuning

89 87

Pioneer has a proven track record of applying its audio expertise to the creation of multi-channel sound environments, collaborating with George Martin's AIR Studios in England on numerous occasions. Our perfect application of the world-famous dubbing studio's monitoring methods intensifies the emotion and excitement of what you see and hear. Established in 1969 in London, AIR Studios is now an acclaimed recording complex, favoured by many of the world's most popular and renowned musical talents. The SC-89 and SC-87 have received the AIR Studios Monitor certification.



<http://www.airstudios.com/>



AIR Studios



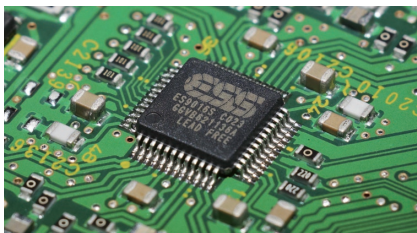
Studio 6



### ESS SABRE<sup>32</sup> Ultra DAC

89 87 85

The highly acclaimed 192 kHz/32-bit ESS SABRE<sup>32</sup> Ultra DAC (ES9016S) is adopted to deliver exceptional sound, with ultra-low distortion and high signal-to-noise ratio. It offers jitter-free performance for an astounding audio reproduction with rich deep bass, bringing out the full potentials of Pioneer's Class D amplifiers.



### Advanced Sound Retriever

89 87 85 82 81

The Advanced Sound Retriever restores the output of compressed audio — such as WMA, MPEG-4 AAC, and MP3 — to the level of CD sound. The technology creates new signals to restore the minor details left out during the compression process. Advanced Sound Retriever for multi-surround sound is compatible with DVD soundtracks featuring Dolby Digital or DTS.



### Auto Sound Retriever

89 87 85 82 81

Since the Advanced Sound Retriever is designed with an algorithm optimized to process 128 kbps signal, it did not work well with 8-15 kHz high frequencies in 64 kbps signal, which is the bit rate for quite a few internet stations. The newly developed Auto Sound Retriever automatically determines the audio signal's bit rate, and interpolates the data lost during compression. It is especially effective for improving the sound quality of low bit rate content — an ideal feature when switching between internet radio stations with different bit rates.



### Auto Sound Retriever for ARC

89 87 85 82 81

With digital broadcast, although images are displayed in high-definition, the audio quality is not as high since they are compressed with various bit rates. By applying Pioneer's Auto Sound Retriever feature to TV broadcast signals, it adjusts the effects according to the bit rate transferred via HDMI's ARC (Audio Return Channel), letting you enjoy digital TV broadcast in high-definition sound via Pioneer AV receiver.

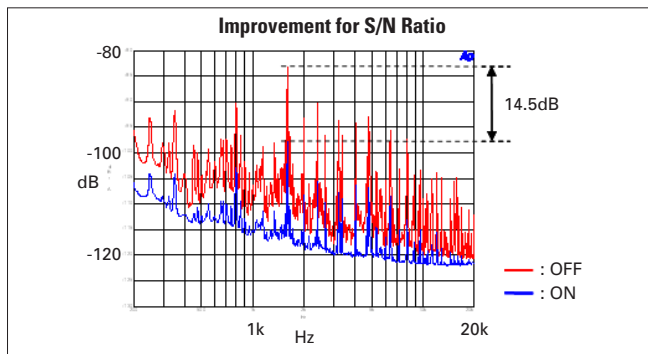
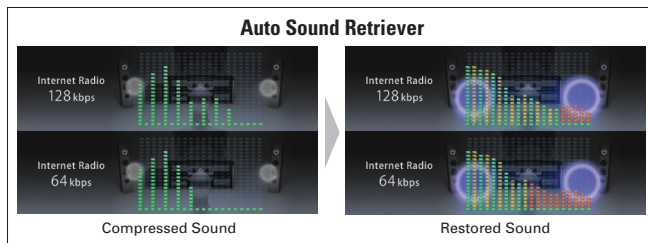
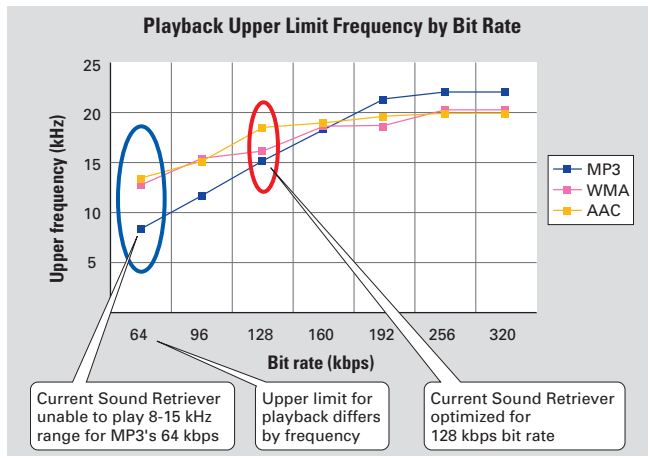
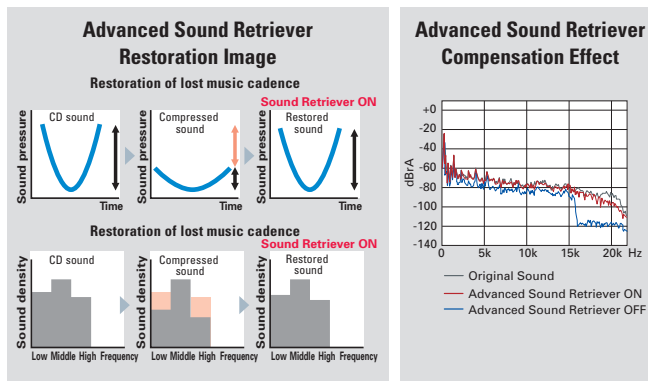
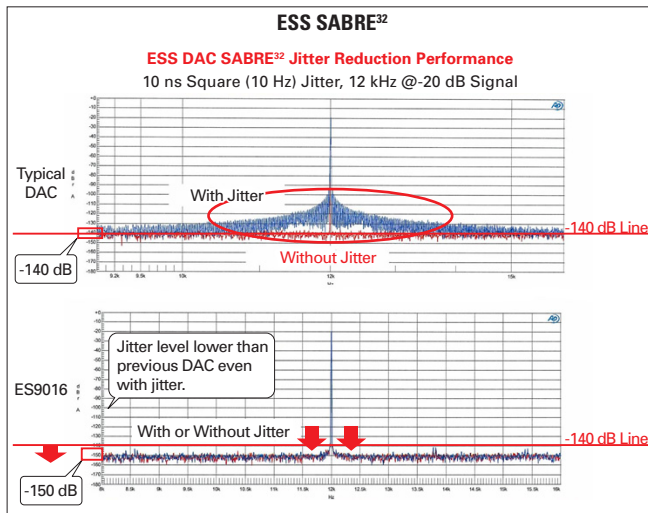
### Sound Retriever Link

89 87 85 82 81

Through HDMI connection, Sound Retriever Link detects the original audio file information such as source type, codec, and bit rate played on a compatible Pioneer Blu-ray Disc player, and automatically switches to the most suitable Sound Retriever. So there is no need to switch on/off according to the source. Advanced Sound Retriever is selected for Blu-ray Disc and DVD sources, and Auto Sound Retriever is selected for other sources.



\* Advanced Sound Retriever is selected for all sources when connected with a non-compatible Blu-ray Disc player.



Advanced Multi-Channel Stereophonic Philosophy  
 Audio Technologies  
 Video Technologies  
 Audio Formats & Licenses  
 Sophisticated Listening Modes  
 Connectivity  
 Network Features  
 Advanced Control  
 Construction

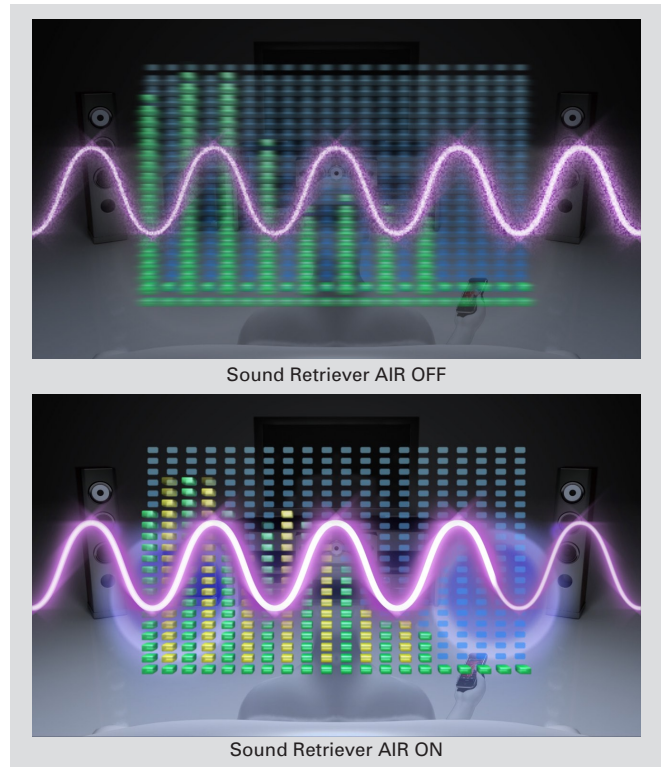
### Sound Retriever AIR

89 87 85 82 81

When streaming music via *Bluetooth*\*, the sound quality often suffers due to the compression process. Pioneer's Sound Retriever AIR is the world's first technology for improving the quality of *Bluetooth* transmitted sound. It restores the music cadence lost through compression, and also reduces the noise generated by *Bluetooth* transmission resulting in a better S/N ratio.



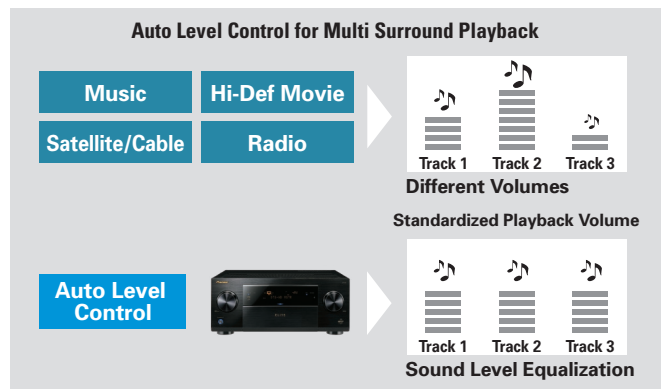
\* AS-BT200 optional adapter required



### Auto Level Control

89 87 85 82 81

Auto Level Control equalizes volume level differences between tracks when playing music from an iPod or other sources. Multi-channel Auto Level Control supports surround sound playback, maintaining a consistent level and clear audio. The function adjusts low and high frequency sounds, dialogs, surround effects etc. that are difficult to hear in low volume, to optimal levels — an ideal feature for listening at night without disturbing others.



### PQLS with HDMI

89 87 85 82 81

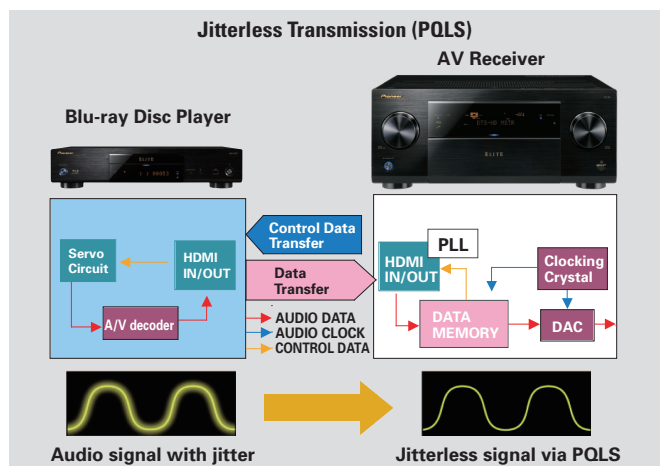
With the precision quartz controller on the AV receiver, Pioneer's Precision Quartz Lock System (PQLS) eliminates distortion caused by timing errors. It controls the amount of audio signals from the AV receiver to the compatible player, giving the best possible digital-to-analog conversion.



Three types of PQLS are available on the AV receivers depending on the connected Blu-ray Disc player (see compatibility chart on right).

- PQLS 2ch Audio: For CD playback.
- PQLS Multi-Surround: For CD/DVD/BD playback, when the Blu-ray Disc player output is set to LPCM.
- PQLS Bit-stream: For CD/DVD/BD playback, all the time.

For PQLS to be effective, Control with HDMI needs to be on, and PQLS setting needs to be set to Auto.



### PQLS Backward Compatibility

Blu-ray Disc Players	AV Receivers
	SC-89/SC-87/SC-85/SC-82/SC-81
BDP-05FD	2ch
BDP-09FD	2ch
BDP-320	2ch
BDP-23FD	Multi-Surround/2ch
BDP-33FD/BDP-31FD/BDP-330 BDP-43FD/BDP-41FD/BDP-430 BDP-53FD/BDP-51FD/BDP-440 BDP-62FD	Bit-stream/Multi-Surround/2ch

### Ultra HD (4K/60p) Upscaling

89 87 85 82 81

Ultra HD (4K), usually referred to as 4K, is the next-generation ultra-high-resolution standard with 3,840 x 2,160 pixels or 4,096 x 2,160 pixels — four times the current HD 1080p standard. The AV receiver upscales standard video sources up to 4K/60p high-resolution images (4K/60p/4:4:4/24-bit, 4K/24p/4:4:4/36-bit, 4K/60p/4:2:2/36-bit) based on the HDMI 2.0 specification, for viewing on a 4K-compatible display. The AV receivers support 18 Gbps bandwidth, allowing reproduction of 4:4:4 color format, and are ready to bring out the best from the future generation Ultra HD devices with 18 Gbps transfer capabilities.



### Ultra HD (4K/60p) Pass Through

89 87 85 82 81

The feature lets you take advantage of the highest-quality video source, by passing through 4K/60p signals (4K/60p/4:4:4/24-bit\*, 4K/24p/4:4:4/36-bit, 4K/60p/4:2:2/36-bit\*) based on the HDMI 2.0 specification for viewing on a compatible display.  
 \* BD IN, IN 1, IN 2 HDMI input only



#### What's 4K?

Next generation high resolution video signal standard with 4 times Full HD resolution.

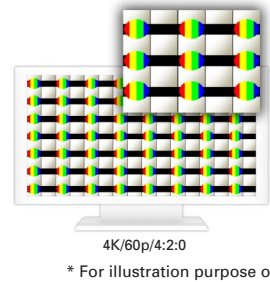
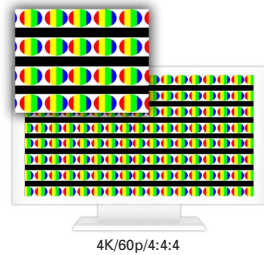
#### Compatible Resolution

- 3,840 x 2,160 pixels, defined by ITU (International Telecommunication Union) mainly for broadcasting
- 4,096 x 2,160 pixels, defined by DCI (Digital Cinema Initiatives) for Digital Cinema



Difference in Resolution by Chroma Format

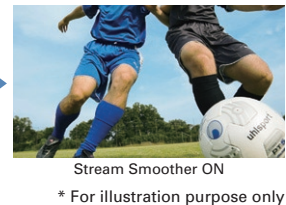
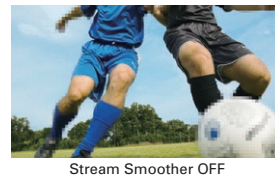
Chroma Format	Luma Resolution	Chroma Resolution	
		Horizontal	Vertical
4:4:4	Full	Full	Full
4:2:2	Full	1/2	Full
4:2:0	Full	1/2	1/2



### Stream Smoother

89 87 85 82 81

Stream Smoother is a video adjustment feature for watching network content on your home theater. It reduces block noise and mosquito noise on low bit rate video content such as YouTube™, offering finer and clearer images.



### Stream Smoother Link

89 87 85 82 81

Through HDMI connection, Stream Smoother Link detects the source type playing on a compatible Pioneer Blu-ray Disc player, and automatically switches Stream Smoother on or off accordingly. So there is no need for manual switching depending on the source. Stream Smoother is turned off for Blu-ray Disc and DVD sources, and turned on for network content to enrich low bit rate video quality.

\* When connected with a non-compatible Blu-ray Disc player, Stream Smoother is turned off with "Auto" setting.

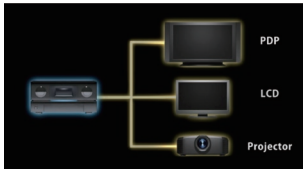

### Advanced Video Adjust

89 87 85 82 81

Advanced Video Adjust is a new feature which optimizes video signals according to the connected display type, such as plasma display panel, LCD, or projector. Additionally, it automatically adjusts the picture image for the distance of your viewing position, based on MCACC measurement data.

\* Function not available for component/composite analog connection. Video optimization only available for HDMI connection.



**Optimized Image with Advanced Video Adjust**

By Display Type By Distance



**Advanced Video Adjust**

- **PDP Mode 1**



**Adjusts for optimum image with more detail and less noise**

- **PDP Mode 2**



**Adjusts for a more natural image**

- **LCD Mode**

**Adjusts LCD's washed out black for optimum image**

- **Front Projector Mode**

**Provides a sharp and vivid image suited for a front projector**

\* For illustration purpose only

### Highly-Precise I/P Conversion

89 87 85 82 81

Merely having a high-grade video processor does not guarantee a quality picture — a fine-tuned setup makes the difference. Pioneer engineers have performed rigorous testing to achieve an optimum image from almost any content. This highly-precise conversion is effective for HD as well as SD sources.



#### PureCinema I/P Conversion

For film content, PureCinema I/P Conversion faithfully reproduces the original material.

#### Motion Adaptive I/P Conversion

For video content, Motion Adaptive I/P Conversion processes moving images by eliminating conversion errors or noise generation, to deliver high-quality pictures.

**Motion Adaptive I/P Conversion**

Conventional I/P Conversion Motion Adaptive I/P Conversion

### Triple HD Video Noise Reduction

89 87 85 82 81

The AV receivers feature three separate noise reduction circuits for enhanced video performance.

- **Component Frame Noise Reduction (YNR/CNR):** reduces Gaussian noise without blurring the picture
- **Block Noise Reduction:** reduces block noise found in flat areas
- **Mosquito Noise Reduction:** reduces noise along the outline of images



The Pioneer-exclusive advanced PureCinema I/P Converter also helps to remove distracting lines during playback.

#### Triple HD Video Noise Reductions

Gaussian Noise	Block Noise	Mosquito Noise
Grainy Image	Mosaic-Like Artifacts	Hazy Edge
Clear Image	Clear Image	Clear Image

### Deep Color

89 87 85 82 81

Pioneer AV receivers support 36-bit Deep Color, featuring smooth gradation steps with more accurate precision of brightness and color information, resulting in superbly detailed, natural color.

#### 36-bit Deep Color Image

24-bit (8-bit x 3)

256 steps

➔

36-bit (12-bit x 3)

4,096 steps

24-bit 16 million colors

➔

36-bit 68,719 million colors

**Smoother Images**

\* For illustration purpose only

### "x.v.Color"

89 87 85 82 81

Pioneer AV receivers support "x.v.Color", which almost doubles the range of colors (known as the "gamut") that can be accurately captured, and reproduced on a compatible display, thereby more closely matching the natural characteristics of the human eye.



\* "x.v.Color" only available for playback of discs recorded with AVCHD devices. "x.v.Color" and the "x.v.Color" logo are trademarks of Sony Corporation.

### Dolby Atmos® Upgradable

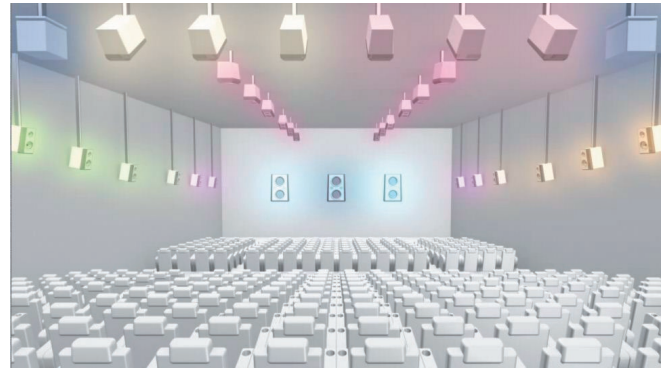
89 87 85

Dolby Atmos is a unique new technology for enjoying the latest surround sound. In a movie theater, overhead speakers are placed, with a multi-layer approach to the sound design. On top of the conventional channel-based soundtrack, object-oriented mixing is used to layer dynamic sound elements, so regardless of the theater's speaker setup, independent sound elements can move around freely in a three-dimensional space. Compared to Dolby Digital with discrete channels, Dolby Atmos offers seamless surround sound movement with up to 64 separate speaker output and a sense of height created by the overhead speakers. The sound is completely in sync with the screen view, providing total immersion with unprecedented sound localization and movement.

This theater sound experience can be reproduced in your home with Pioneer's Dolby Atmos upgradable\* AV receiver, which not only decodes Dolby Atmos, but also features three new speaker configuration modes using overhead speakers—5.2.4-ch with top forward/top backward (9.2-ch), 7.2.2-ch system with top middle/front wide (9.2-ch), and 7.2.2-ch with top middle/front height (9.2-ch). With 7.2.2-ch top middle/front wide and top middle/front height, the top middle speaker is used for Dolby Atmos content, and switches to front wide or front height when playing other content.

What's more, with the latest MCACC Pro room calibration technology, the AV receiver not only adjusts the speaker distance, level, and tones, but also the phase differences for precise sound delivery. You can fully appreciate the object effects of Dolby Atmos with more clear and accurately positioned theater sound.

\* Firmware update required. Firmware update available by end of 2014.



Speaker Layout of a Dolby Atmos Theater



Speaker Layout Example of a Dolby Atmos Home Theater (5.2.4ch)

### Dolby TrueHD

89 87 85 82 81

Dolby TrueHD delivers sound that is on par with the original soundtrack, letting you experience the world of true high-definition entertainment from Blu-ray Discs. With lossless encoding in up to 18 Mbps bit rate, Dolby TrueHD creates a synergy with high-definition video to offer you a home theater experience like never before.



### Dolby TrueHD Loudness Management

89 87 85 82 81

Loudness Management frees you from annoying volume fluctuations that often occur when switching channels, programs, or input sources, by maintaining a consistent loudness-level. The function turns on/off during content playback, activating or deactivating post processing within the decoder. When the function is turned off, audio is delivered in a lossless mode.

### DTS-HD Master Audio™

89 87 85 82 81

With DTS-HD Master Audio, you can enjoy sound that is bit-for-bit identical to the studio master. DTS-HD Master Audio delivers audio at extremely high variable bit rates of 24.5 Mbps, which far exceeds standard DVDs. DTS-HD Master Audio offers movies and music in the pure, original state as intended by the artists.



### High Definition Audio Formats

DTS-HD Master Audio and Dolby TrueHD provide sound that is bit-by-bit identical to the studio master, delivering sound at extremely high variable bit rates far exceeding standard DVDs.

#### Comparison of High Definition Audio Formats

Compressed		Uncompressed
Lossless	Lossy	
Dolby TrueHD 	Dolby Digital Plus 	Linear PCM
DTS-HD Master Audio 	DTS-HD High Resolution Audio 	Uncompressed 48 kHz/16-bit audio format similar to CD, but with higher sampling frequencies and quantization. No decoding required.

**DTS Neo:X**

89 87 85

**DTS Neo:X | 7.1**

82 81

The AV receivers feature DTS Neo:X, the world's first 11.1ch surround sound format. Using 5.1ch or 7.1ch soundtracks, the format creates additional height and wide channels, and produces an enveloping a semi-spherical sound field for a lifelike 3D sound for music, games, or movies.




**Hi-Res Audio File Playback via USB/Network**

89 87 85 82 81

In addition to 5.6/2.8 MHz DSD (Direct Stream Digital) file playback\* via USB, the Pioneer AV receivers are the first to realize DSD streaming\*\* via network. Up to 192 kHz/24-bit WAV, FLAC, AIFF, and Apple Lossless files can also be played via USB/network.



\* 2.8 MHz only via USB/network for SC-82/SC-81  
 \*\* DLNA compatible server or NAS capable of DSD streaming required

 This logo is used for Pioneer products capable of 96 kHz/24-bit or above WAV/FLAC file playback, and Pioneer amplifiers, speakers, or headphones supporting over 40 kHz high-frequency reproduction, designed to derive maximum performance from Hi-Resolution Audio.

**Multi-channel Audio Playback via USB/Network**

89 87 85 82 81

Pioneer's AV receivers are the first in the industry to realize multi-channel (5.0ch/5.1ch) playback of high-resolution audio formats. You can fully enjoy recordings of live concerts and classical music in 96 kHz/24-bit WAV or FLAC files via DLNA or USB.

### Native DSD Playback via USB-DAC with DoP Transmission

89

The AV receiver allows direct USB connection with your computer for audio playback, with signal transfer via USB-DAC. The result is high-quality sound reproduction with reduced jitter, reproducing master quality sound with extremely precise audio signals. A dedicated driver can be installed to your computer from the included CD-ROM. The AV receiver supports Native DSD playback by DoP (DSD over PCM) transmission.

### DSD Music File Playback via USB

89 87 85 82 81

The AV receivers can play 5.6 MHz\* or 2.8 MHz DSD (Direct Stream Digital) files via network or from a USB memory stick, letting you enjoy superior sound without any special players.

\* SC-89/SC-87/SC-85 only

### DSD Disc (SACD) Playback via HDMI

89 87 85 82 81

The AV receivers can play high-quality DSD audio files from SACD discs via HDMI in 2.8 MHz.

#### DSD Playability Comparison

	Via USB-B	Via USB-A			Via HDMI			
SC-89	Native DSD Playback via USB-DAC with DoP 2.8 MHz (2ch)	DSD Direct Playback 5.6 MHz (2ch)	DSD Direct Playback 2.8 MHz (2ch)	DSD Playback with PCM Transcode 5.6 MHz (2ch)	DSD Playback with PCM Transcode 2.8 MHz (2ch)	DSD Disc (SACD) Direct Playback 2.8 MHz (2ch)	DSD Disc (SACD) Playback with PCM Transcode 2.8 MHz (5.1ch)	DSD Disc (SACD) Playback with PCM Transcode 2.8 MHz (2ch)
SC-87								
SC-85								
SC-82								
SC-81								



### Various Music File Playback via USB/Network/HDMI

89 87 85 82 81

Various music files can be played back via USB or HDMI (SACD)\*\*. With DLNA and AirPlay features, the AV receivers let you stream audio from compatible devices. Through a DLNA app, you can now stream WMA, MP3, AAC, WAV, FLAC, AIFF, and Apple Lossless audio files stored on your DMS.

#### Playable Formats

Format	Extension	Stream	SC-89/SC-87/SC-85/SC-82/SC-81	
via USB/Network				
MP3*	.mp3	MPEG-1 Audio Layer-3	Sampling Frequency	32/44.1/48 kHz
			Quantization Bit Rate	16 bit
			Channels	2
			Bit Rate	8-320 kbps
			VBR/CBR	Supported/Supported
WAV	.wav	WAV	Sampling Frequency	32/44.1/48/88.2/96/176.4/192 kHz
			Quantization Bit Rate	16 bit/24 bit
			Channels	5.1/5.0 (up to 96 kHz)** , 2
WMA	.wma	WMA2/7/8/9	Sampling Frequency	32/44.1/48 kHz
			Quantization Bit Rate	16 bit
			Channels	2
			Bit Rate	5-320 kbps
			VBR/CBR	Supported/Supported
AAC	.m4a .aac .3gp .3g2	MPEG-4 AAC LC MPEG-4 HE AAC (aacPlus v 1/2)	Sampling Frequency	32/44.1/48 kHz
			Quantization Bit Rate	16 bit
			Channels	2
			Bit Rate	16-320 kbps
			VBR/CBR	Supported/Supported
Apple Lossless	.m4a .mp4	ALAC	Sampling Frequency	32/44.1/48/88.2/96 kHz
			Quantization Bit Rate	16 bit/24 bit
			Channels	2
FLAC	.flac	FLAC	Sampling Frequency	32/44.1/48/88.2/96/176.4/192 kHz
			Quantization Bit Rate	16 bit/24 bit
			Channels	5.1/5.0 (up to 96 kHz)** , 2
AIFF	.aif .aiff	AIFF	Sampling Frequency	32/44.1/48/88.2/96/176.4/192 kHz
			Quantization Bit Rate	16 bit/24 bit
			Channels	2
DSD**	.dff .dsf	DSDIFF DSF	Sampling Frequency	2.8224/5.6448 MHz
			Quantization Bit Rate	1 bit
			Channels	2
via HDMI				
DSD Disc*** (SACD)	-	-	Sampling Frequency	2.8224 MHz
			Quantization Bit Rate	1 bit
			Channels	5.1**/2

\* MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson Multimedia

\*\* Playback only. 2.8224 MHz only for SC-82/SC-81

\*\*\* Playback only

### Variable File Play Action

89 87 85 82 81

Various features to easily access and play your music library are available for the AV receivers. Using the remote control, you can fast forward/fast rewind during playback, and sort songs (alphabetical/track order). In addition to these operations, the new iControlAV5 app lets you search songs and albums. This feature works even if you don't remember the exact title.

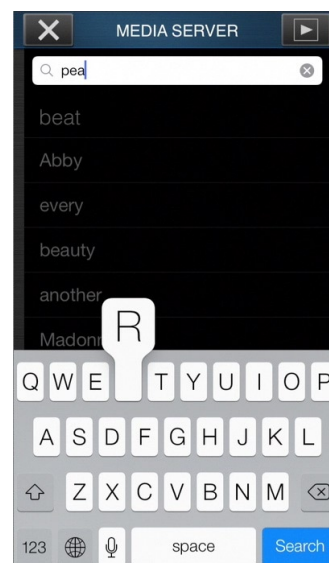
### Gapless Playback

89 87 85 82 81

Enjoy smooth, uninterrupted audio playback for WAV, FLAC, AIFF, AAC, MP3, and Apple Lossless files. The function is ideal for listening to music tracks intended for continuous play, such as classical music, progressive rock, concept albums, or live recordings.

\* Gapless playback only available for DLNA 2-Box Pull and USB memory playback. Not available for WAV/FLAC multi-channel streaming.

#### Search Songs on iControlAV5



### Various Speaker Settings

89 87 85 82 81

In addition to the standard 7.1ch layout (Fig. 1), various speaker layout options are available with this year's AV receiver lineup. Combine front wide speakers with Pioneer-original Wide Surround mode (Fig. 2) to enjoy more spacious sound in the front. Or place front height speakers and use Dolby Pro Logic IIz (Fig. 3) for vertical-spreading sound.

### Wide Surround Mode

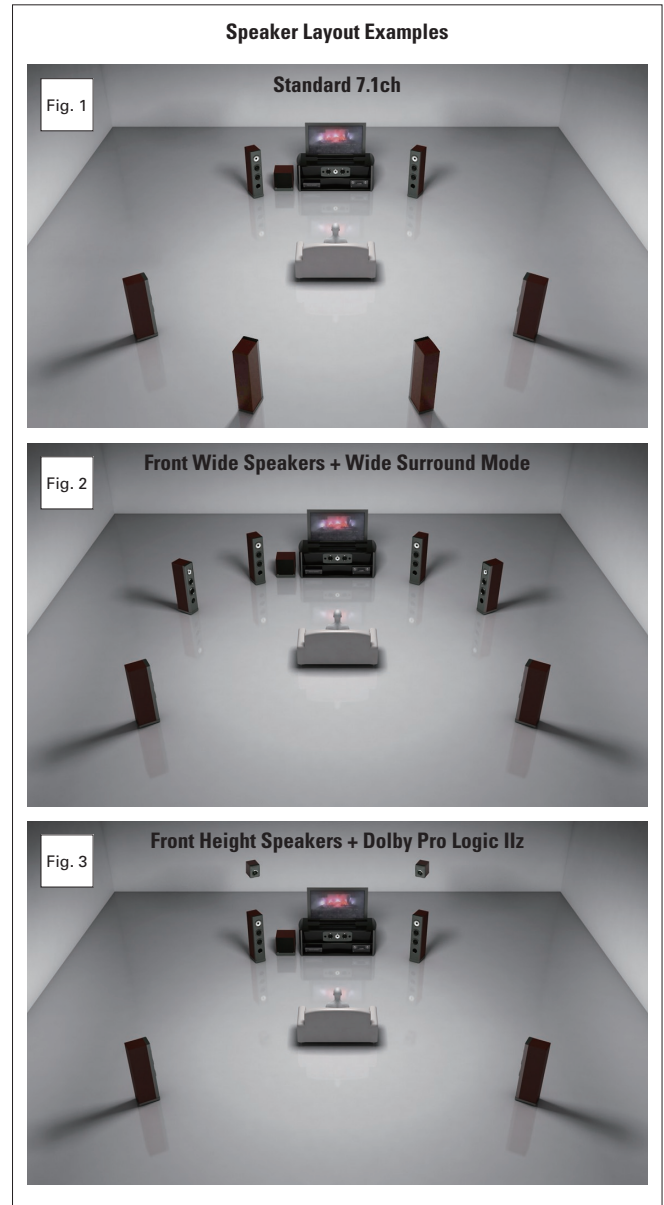
89 87 85 82 81

Pioneer's Wide Surround Mode creates sound with highly dense motion feeling around the front and sides. Wide Surround Movie provides motion feeling in front, while Wide Surround Music creates a wide-spreading sound field in the foreground.

### Dolby Pro Logic IIz

82 81

Dolby Pro Logic IIz realizes more spacious surround sound by adding front height channels to the conventional 5.1ch/7.1ch speaker settings. The enveloping sound with additional depth and dimension creates a lifelike listening experience. Dolby Pro Logic IIz does not require special content, and works with existing soundtracks.



### Virtual Speakers

89 87 85 82 81

By turning on Virtual Surround Back, Virtual Height, and Virtual Wide modes, you can experience virtual 11.1-channel sound from a 5.1-channel speaker setting. The sound field can be adjusted with intuitive control on your iPod touch/iPhone/iPad or Android device using the iControlAV5 application.



Virtual Speakers

#### Virtual Wide

Virtual Wide mode (Fig. 5) is a useful solution for creating the effects of front wide speakers, letting you enjoy surround sound in a rich sound field — all without placing extra speakers.

#### Virtual Height

If you want to experience vertically falling sound but can not place front height speakers, there's a perfect solution. Pioneer's Virtual Height mode (Fig. 6) creates a height sound image without front height speakers, letting you enjoy enveloping virtual 7.1-channel sound from 5.1-channel speaker settings.

#### Virtual Surround Back

Want to be thrilled by surrounding sound from behind, but don't have the space for surround back speakers? Then try Virtual Surround Back mode (Fig. 7). It simulates 7.1-channel surround sound, giving the impression of surround back speakers when listening to a 5.1-channel source. What's more, by turning on both Virtual Height and Virtual Surround Back modes, you can enjoy virtual 9.1-channel sound on a 5.1-channel speaker setting. By adding front wide speakers, you can enjoy virtual 11.1-channel sound from a 7.1-channel speaker layout.

### Virtual Depth

89 87 85 82 81

Virtual Depth is a Pioneer-exclusive feature for creating a virtual sound field behind the screen — a perfect match for 3D video contents, for a lively synergy of sound and vision.



Virtual Depth

### Speaker Layout Examples

Virtual speakers shown in orange



Fig. 4

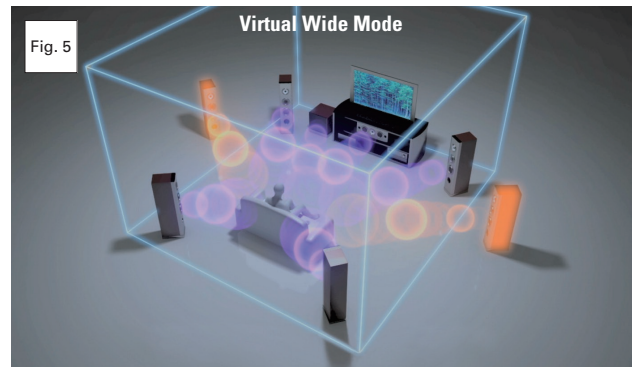


Fig. 5

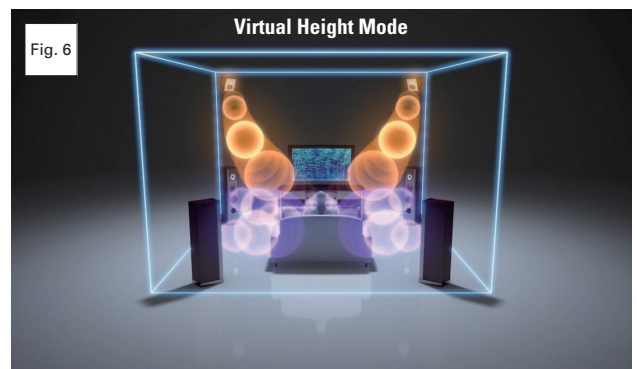


Fig. 6

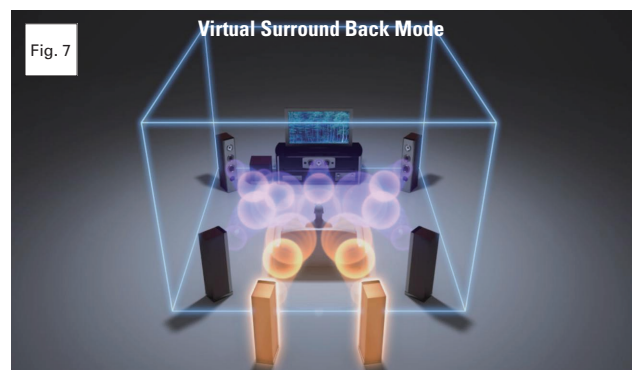
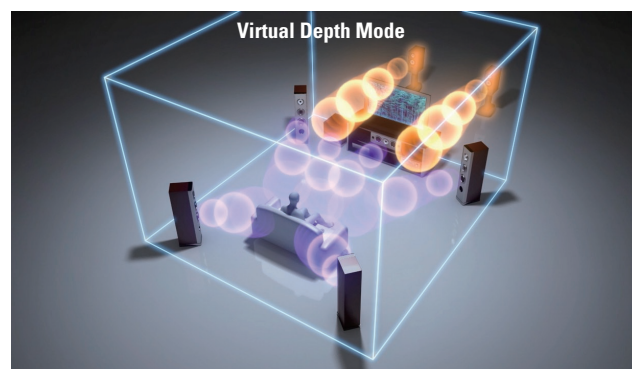


Fig. 7

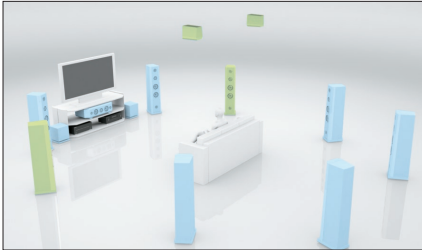


### 9ch Speaker Configurations

89 87 85

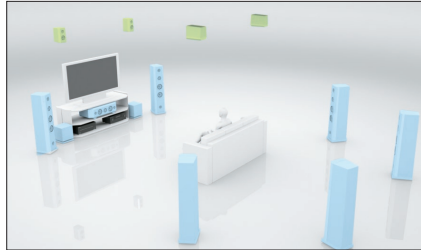
With speaker terminals for 11 channels, various speaker layouts are available to suit your taste or usage patterns. Three new configurations ([A]-[C]) have been added for optimum performance when using Dolby Atmos.

[A] 9.2 channel surround system (Top middle/Front wide) connection



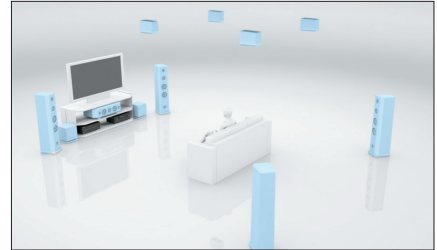
Simultaneous output from top middle and front height speakers not available.

[B] 9.2 channel surround system (Top middle/Front height) connection



Simultaneous output from top middle and front wide speakers not available.

[C] 9.2 channel surround system (Top forward/Top backward) connection

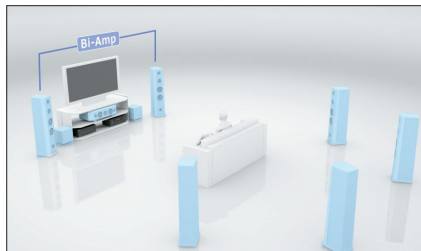


[D] 7.2 channel surround system & Speaker B connection

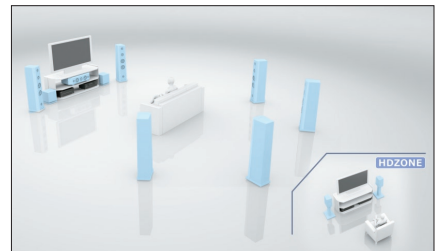


Simultaneous output from top middle and B speakers not available.

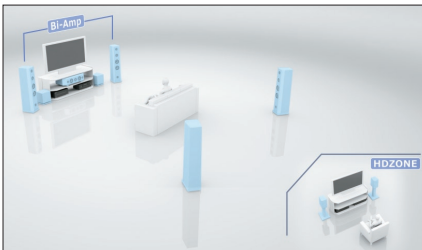
[E] 7.2 channel surround system & Front Bi-amping connection (High quality surround)



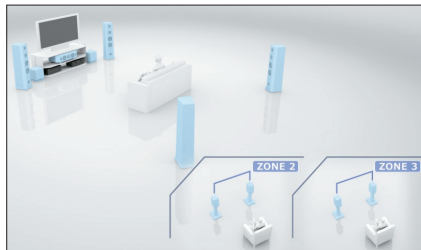
[F] 7.2 channel surround system & HDZONE connection (Multi Zone)



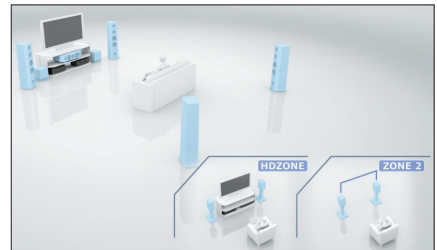
[G] 5.2 channel surround system & Front Bi-amping connection (High quality surround) & HDZONE connection (Multi Zone)



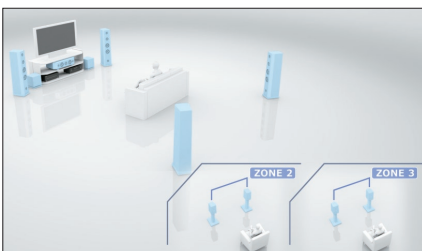
[H-1] 5.2 channel surround system & ZONE 2/ZONE 3 connection (Multi Zone)



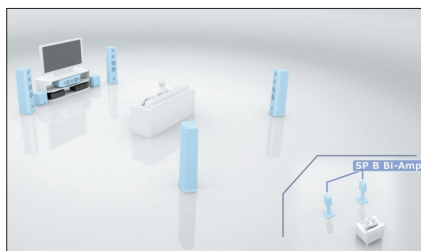
[H-2] 5.2 channel surround system & ZONE 2/HDZONE connection (Multi Zone)



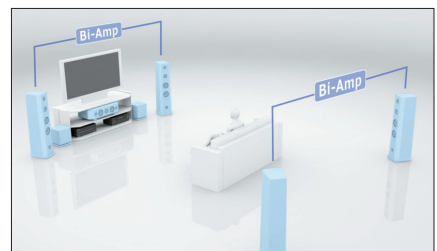
[H-3] Multi-ZONE Music connection



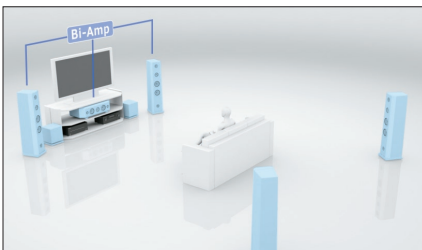
[I] 5.2 channel surround system & Speaker B Bi-amping connection



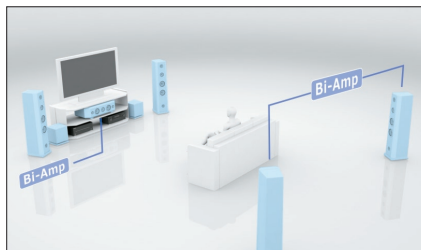
[J] 5.2 channel surround system & Front and Surround Bi-amping connection (High quality surround)



[K] 5.2 channel surround system & Front and Center Bi-amping connection (High quality surround)



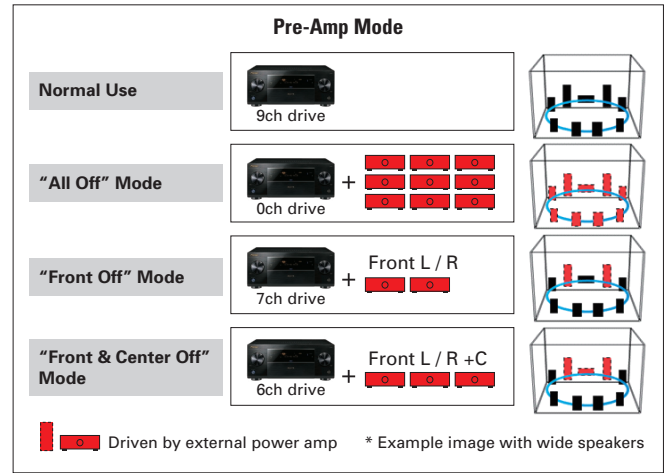
[L] 5.2 channel surround system & Center and Surround Bi-amping connection (High quality surround)



### Pre-Amp Mode

89 87 85

Pre-amp Mode shuts down the power supply to the power amplifier, providing more clear and pure sound when using the AV receiver as a pre-amplifier.



### Advanced Surround Modes

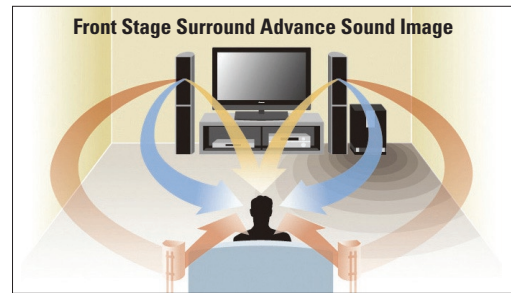
89 87 85 82 81

The AV receivers feature 11+1 Advanced Surround Modes — Action, Drama, Advanced Game, Sports, Classical, Rock/Pop, Front Stage Surround, Extended Stereo, Sound Retriever AIR (see page 10 for details), ECO Mode 1, ECO Mode 2 + Phones Surround — for an optimized sound for your entertainment.

### Front Stage Surround Advance

89 87 85 82 81

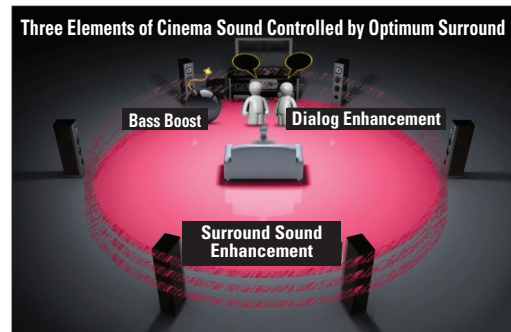
With Front Stage Surround Advance, you can enjoy surround sound coming from only the front speakers and the subwoofer. Since wall reflections are not used, the setup is less dependent on the room environment, allowing front alignment of the speakers. Front Stage Surround Advance creates an excellent sound image and natural sound.



### Optimum Surround

89 87 85

Dialog, bass, and surround sound are the three elements of cinema sound. When soundtracks are played on a home theater at a much lower volume, the impression may become quite different. Optimum Surround is a Pioneer-exclusive listening mode for solving this problem, developed through repeated interviews with actual film makers. For each scene, this technology automatically optimizes the balance of the three elements with an original algorithm. Bring home the real thrills of the movie as intended by the creators.

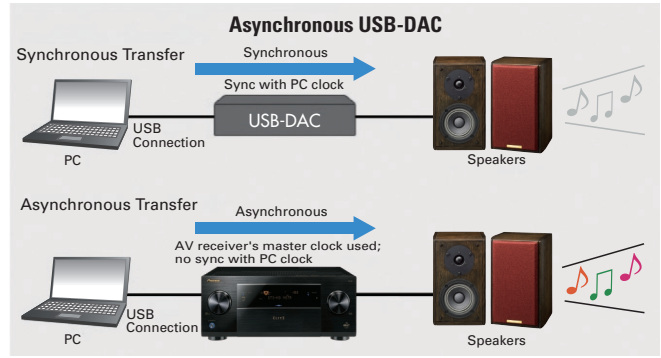


**USB-DAC**

89

The AV receiver allows direct USB connection with a computer\*, without having to access the home network. What's more, signal transfer is done with USB asynchronous transfer mode, which controls the transfer process using its high-accuracy clock instead of syncing with the clock on the PC-side, ensuring high-quality sound reproduction. This eliminates jitter, reproducing master quality sound with extremely precise audio signals, even for Hi-bit32 Audio Processing.

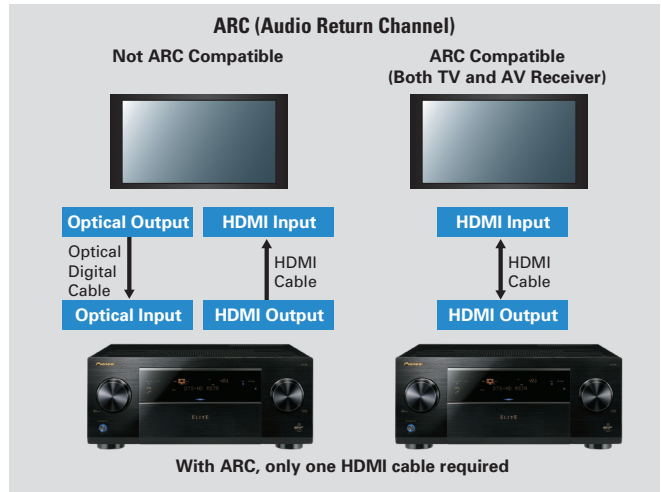
\* Driver download from Pioneer website required



**HDMI® (4K@60, 3D, ARC)**

89 87 85 82 81

Pioneer's latest AV receivers feature HDMI with 3D technology. You can enjoy the latest 3D Blu-ray Discs, games, and broadcasts by combining the AV receivers with a 3D compatible Blu-ray Disc player, game console, or tuner (STB) and display via HDMI connection. The Audio Return Channel (ARC) feature allows a TV with built-in tuner to send audio data "upstream" to the AV receiver via HDMI — so there's no need for a separate audio cable. Enjoy full-digital transfer of high-definition audio as well as up to 4K/60p video signals by HDMI connection. Multi-channel PCM (192 kHz), lossless bit-stream, and SACD audio can also be processed by HDMI single-cable connection.



**Made for iPod and iPhone**

89 87 85 82 81

The latest AV receivers are certified "Made for iPod and iPhone" products, letting you enjoy music from your iPod/iPhone. The included cable allows direct USB connection to the front panel, providing battery charge for your devices. The AV receivers are also compatible with video playback from iPod/iPhone.

\* Available features depend on iPod/iPhone model For details on iPod compatibility, visit <http://pioneer.jp/homeav/support/ios/na>

**Digital Audio from iPod/iPhone via USB**

89 87 85 82 81

Enjoy iPod music via digital connection. The audio signals are directly transferred to the AV receiver's high-performance DAC, offering superior sound compared to analog connections. What's more, you can operate your iPod with the AV receiver's remote control.

Functions such as the equalizer cannot be controlled using the AV receiver, so we recommend you to turn off the equalizer before connecting. iPod is for legal or rightholder-authorized copying only. Don't steal music.



### Android Audio/Video Playback with MHL

89 87 85 82 81

One of the HDMI terminals is MHL (Mobile High-Definition Link) compatible, letting you connect an Android device. High-definition video can be displayed on your HDTV with multi-channel sound, while also charging your device\*. You can play back content from your smartphone using the AV receiver's remote control.



\* MHL cable required

MHL Cable (optional)



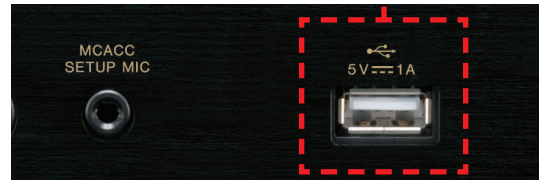
### Front USB Input

89 87 85 82 81

The front panel USB input terminal allows straightforward connection to a USB memory stick. This plug and play connectivity enables you to easily play music files or watch JPEG pictures.



USB Terminal



SC-89

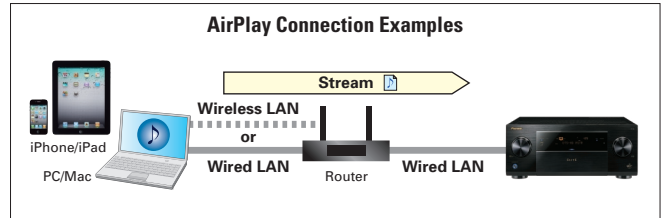
### AirPlay Wireless Audio

89 87 85 82 81

**AirPlay** — Enthusiasts have complete access, control and playback of their entire iTunes music library wirelessly through their AV receiver. Users can quickly and easily enjoy all their music with song information and album art simultaneously displayed on a connected monitor/TV.



\* Available features depend on iPod/iPhone/iPad model. For details on iPod compatibility, visit <http://pioneer.jp/homeav/support/ios/na>



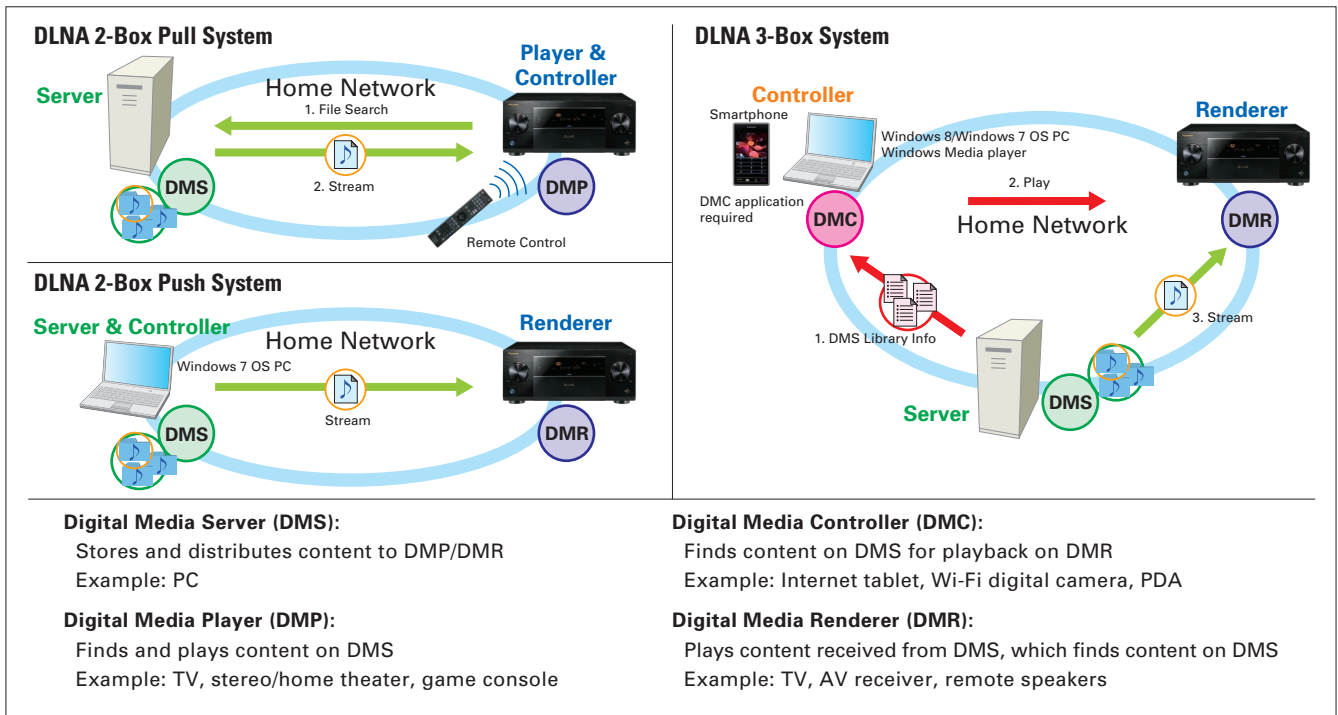
### DLNA Certified™ (1.5)

89 87 85 82 81

The AV receivers are DLNA Certified™ (1.5), enabled to work not only as a Digital Media Player (2-Box Pull System) for playing DMS audio files, but also as a Digital Media Renderer (3-Box System) to be remotely controlled by a device such as a smartphone or PC/Mac. For example, you can play music content\* from a PC/Mac in another room, from a separate device in your living room. As a DMR (2-Box Push System), the AV receivers can also play received audio data when the user controls the DMS. For details on playable formats, see chart on page 17.



\* Depending on file structure and server capacity, it may not be possible to play certain files, including those listed as playable formats on page 15. Playback of DRM protected commercial content requiring DTCP-IP link protection is not supported.



### HTC Connect™ Certified

89 87 85 82 81

Pioneer is the first leading partner to provide HTC Connect certified devices. Through wireless transmission, HTC Connect lets you easily stream high-quality audio from compatible devices such as Android phones, with no need for a separate app.





### Compatible with Windows 8.1/Windows 8

89 87 85 82 81

The AV receivers are compatible with Windows 8.1/Windows 8\*, letting you easily stream music, video, or photos from compatible PCs on your home network.

\* For SC-89



### Internet Radio (vTuner)

89 87 85 82 81

The AV receivers come with the vTuner for listening to a multitude of radio programs from around the world on the internet. LAN connection allows radio access without having to use your PC/Mac. You can easily browse stations using the remote control. Various categories are available on the vTuner database, offering limitless entertainment. You can even add broadcast stations unavailable on the vTuner list. Access the Pioneer internet radio site from your PC/Mac\*, and register the desired stations to your favorites list. Then, you can easily tune in to the radio stations from the AV receiver.



\* Access code required

### Pandora® Internet Radio

89 87 85 82 81

Pandora is a personalized internet radio service with a recommendation feature. **PANDORA** Pandora free account offers up to 40 hours of music per month. Paid subscriptions are also available. For details, visit [www.pandora.com](http://www.pandora.com).

\* Service only available in the U.S. as of May 2014

### Spotify® Digital Music-Streaming Service Ready

89 87 85 82 81

Enjoy on-demand access to millions of songs with Spotify's digital music-streaming service. With the wide range of music selection, you're sure to find a fitting song for your mood or occasion, right at your fingertips. You can make your own choice, or let Spotify surprise you. The AV receivers are ready for the Connect from Spotify, which lets you select songs on your Spotify app for listening on your audio system.



\* Spotify App, iPhone/iPod touch/iPad, and subscription required. For service availability in your country check [www.spotify.com](http://www.spotify.com). Firmware update may be necessary. For details, visit [pioneer.eu/spotify](http://pioneer.eu/spotify). Service only available in the U.S. as of May 2014.

### Roku Ready®

89 87 85 82 81

Just plug the separately sold Roku Streaming Stick™ into the MHL port to enjoy internet streaming of TV shows, sports, news, movies, music, and other entertainment. You can access hundreds of free channels, as well as on-demand content such as Netflix, Hulu Plus, Vudu, and Amazon Instant Video.



### Ready for iControlAV5

89 87 85 82 81

iControlAV5 is an iPod touch, iPhone and iPad application developed by Pioneer, freely downloadable from the App Store.

It is also compatible with Android, and available from Google Play. On a simple and intuitive interface, the application allows you to use your device as a remote for operating the AV receiver's functions such as VOLUME CONTROL, INPUT SELECT, LISTENING MODE, BALANCE, EMPHASIS CONTROL for woofer and center speakers, PUSH PLAYER, and ECO MANAGER. With the SOUND EXPLORER function, you can easily adjust various sound parameters in a fun and intuitive operation. You can also control the basic functions of Pioneer's Blu-ray Disc players.

The latest version comes with improved user interface and new features including the AV SCALER, new STATUS VIEWER, and CURSOR.

\* AV receiver needs to be connected to a wired LAN in a wireless LAN network.

#### AV SCALER

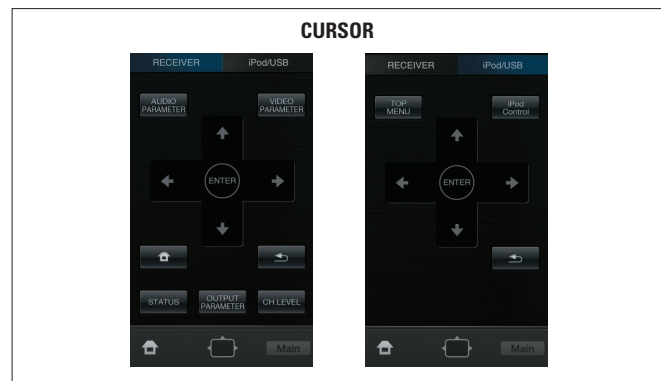
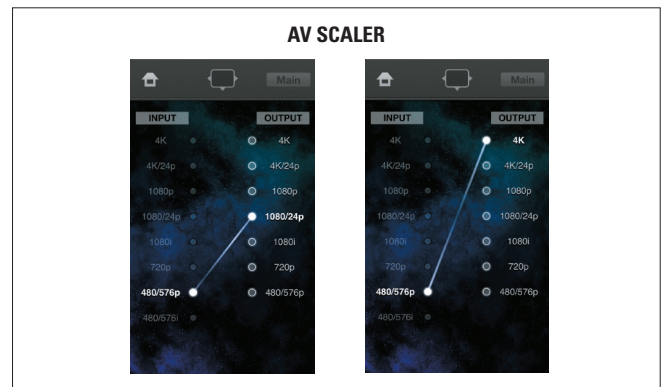
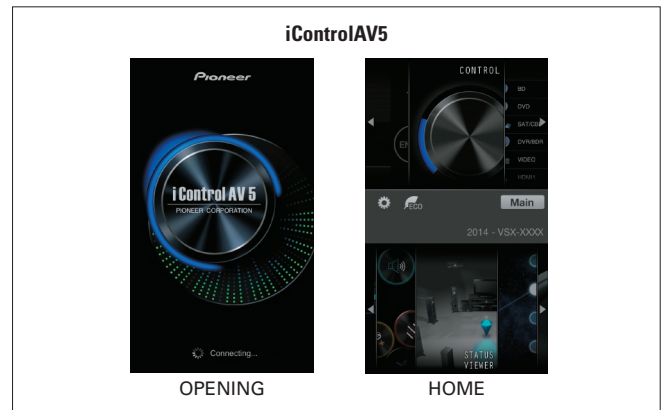
The AV SCALER lets you easily select the input and output signals by drawing a line with your finger.

#### STATUS VIEWER

The new STATUS VIEWER provides graphical display of input/output and status of the playing content, and the image of both real and virtual speakers. You can enjoy intuitive control for Input, Link, Phase, and Channel Level.

#### CURSOR

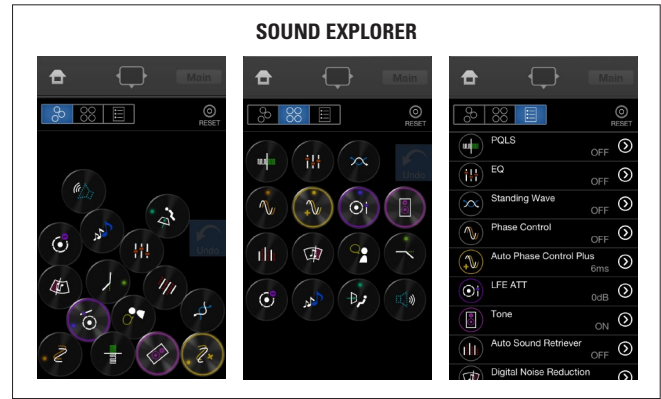
For the currently used function, up/down/left/right operations can be done on the app, instead of using the remote control. The button display changes to correspond to the function on the AV receiver.



**SOUND EXPLORER**

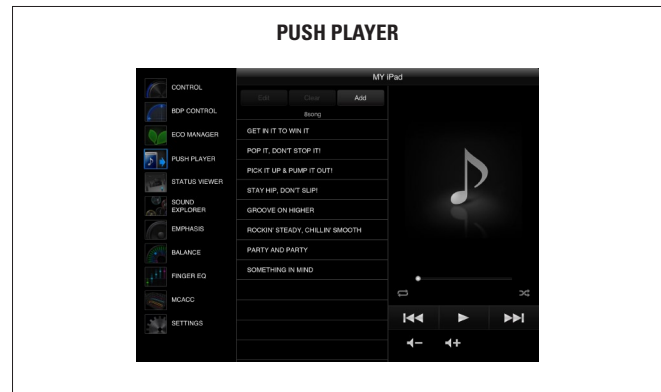
SOUND EXPLORER lets you easily adjust various sound parameters with intuitive and pleasing operation. It comes in three operation modes. With Fixed Position mode, all icons are neatly positioned in rows. The screen on the playful Drop Icon mode displays continuously falling icons. All List mode shows the description and status for each setting, with a link to YouTube video clip explaining the feature.

\* Adjustable sound parameters differ by model.



**PUSH PLAYER**

You can directly stream music stored on your device for playback via the AV receiver.

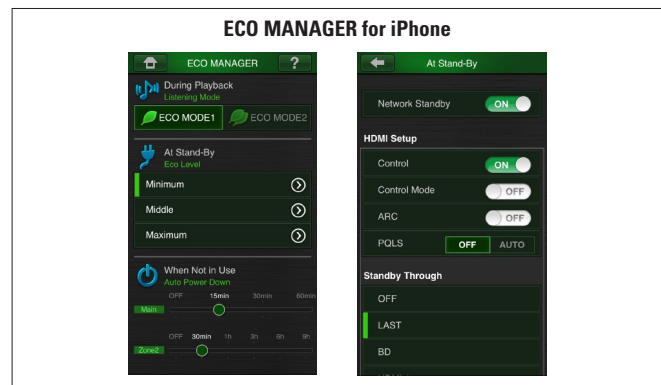


**ECO MANAGER**

The feature is a dedicated page for energy efficient settings (During Playback/At Stand-By/When Not in Use) on your AV receiver. You can select ECO Mode 1 or 2 for playback settings.



ECO Mode 1 features moderate energy saving operation while maintaining high-quality sound, ideal for CD music, 2ch audio files, and internet radio. The higher energy-saving ECO Mode 2 features moderate sound quality, suitable for content with dynamic sound such as movies (multi-ch/2ch) or live concerts. The ECO Mode can also be accessed from the front panel or the remote control.



**Bluetooth® Ready**

- 89
- 87
- 85
- 82
- 81

By using the AS-BT200 optional *Bluetooth* adapter, you can enjoy wireless transmission of audio content from compatible devices such as iPod/iPod touch/iPhone/iPad (with iOS 3.0 or later), mobile phone, or personal computer.

**AS-BT200 Optional *Bluetooth* Adapter**

- A2DP (Advanced Audio Distribution Profile)
- AVRCP (Audio Video Remote Control Profile)
- Registers up to 8 devices

### Built-in AVNavigator

89 87 85 82 81

Pioneer's AVNavigator is a user-friendly support feature for the AV receiver's wiring and operation, including the Wiring Navi and Interactive Operation Guide. AVNavigator is now built-in, and you can easily set up the AV receiver straight out of the box on your PC/Mac/iPad/smartphone. The software will start up via Windows Explorer on a PC or Bonjour on a Mac. With an iOS or Android device, you can access the AVNavigator from the pre-installed iControlAV5 app.

\* The AV receiver and the PC/Mac/iPad/smartphone need to be on the same home network. Control is also available via LAN cable connection with a PC/Mac.

#### Wiring Navi

Start the Wiring Navi on the AVNavigator. By answering questions about your equipment and terminals, the actual connection image will be displayed. Plug in your equipment and speakers accordingly, including the network connection with your device then transmit the setup information to the AV receiver from your PC/Mac/iPad/smartphone.

#### Interactive Operation Guide

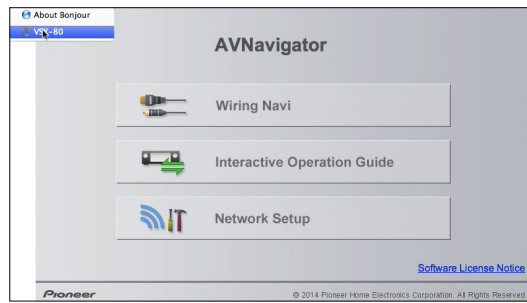
After setup, you can check how to use the AV receiver with the Interactive Operation Guide. This new feature gives a quick tutorial on basic operations using illustrations and animations, allowing you to start right off without referring to the user manual. The Interactive Operation Guide can be browsed on your PC/Mac/iPad/smartphone, and you can send a command to the AV receiver. It also works the other way — key operation on the remote control or the main unit will display the corresponding manual page on your device.

### AVNavigator for iPad

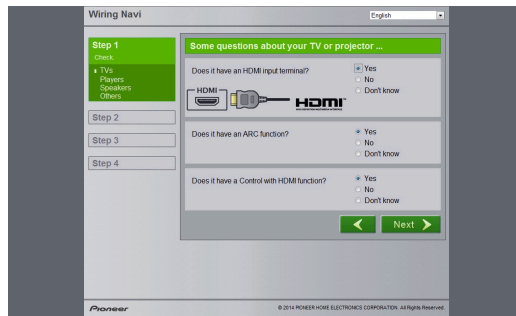
89 87 85 82 81

With Pioneer's AVNavigator for iPad app, in addition to the above mentioned Wiring Navi and Interactive Operation Guide, you can browse and save MCACC measurement data, as well as download the Instruction Manual on your iPad.

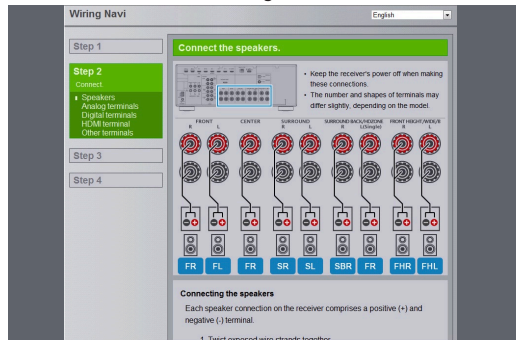
### AVNavigator Top Menu



### Wiring Navi



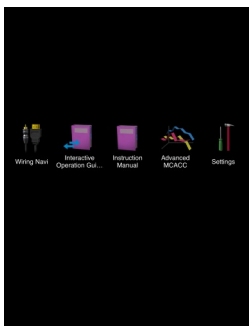
### Wiring Navi



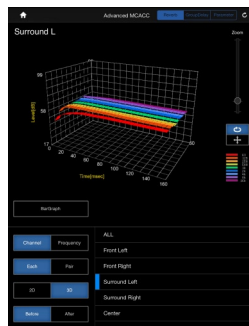
### Interactive Operation Guide



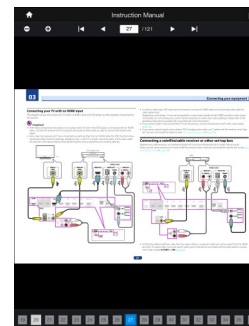
### AVNavigator for iPad



Top Menu



Advanced MCACC



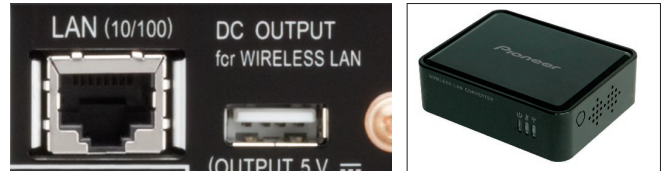
Instruction Manual

Advanced Multi-Channel Stereophonic Philosophy  
Audio Technologies  
Video Technologies  
Audio Formats & Licenses  
Sophisticated Listening Modes  
Connectivity  
Network Features  
Advanced Control  
Construction

### Wireless LAN Converter Ready

89 87 85 82 81

With the optional AS-WL300 optional wireless LAN converter, you can enjoy wireless LAN connection for the AV receivers. The AS-WL300 works with power supply from the AV receiver's dedicated USB terminal, so no AC adapter is required.



Connection ports for AS-WL300

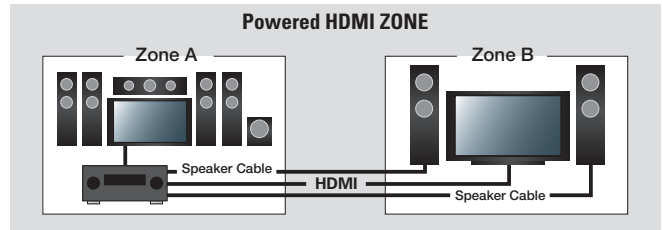
AS-WL300 optional wireless LAN converter

### Powered HDMI ZONE Out (Powered HDZONE)

89 87 85 82 81

The AV receivers are equipped with HDZONE HDMI output terminal, for streaming HD audio/video content to a separate room. If unused for HDZONE, the terminal can be used for MAIN ZONE OUT 2. The new powered feature\* uses the built-in amplifier, so you can enjoy audio in HDZONE by just connecting speakers, with no need for a separate amplifier.

\* Requires speaker setting HDZONE

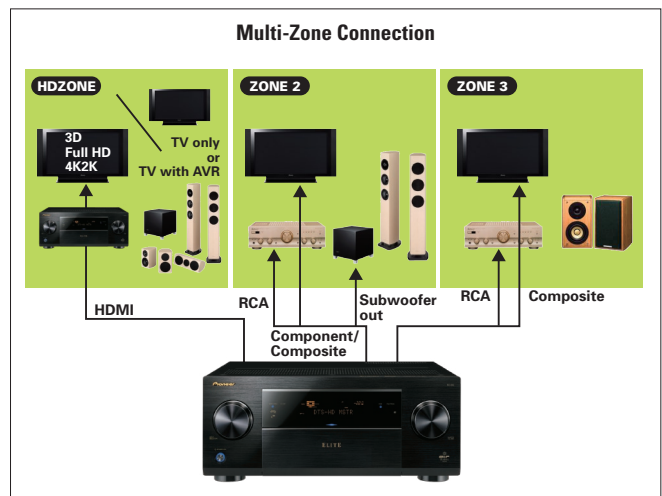


### Multi-Zone (ZONE 2/3)

89 87 85 82 81

With Pioneer's Multi-Zone, you can play music from different sources in 2/3 zones at the same time.

SC-89/SC-87/ SC-85/SC-82	ZONE 2 audio, subwoofer, volume, balance and tone ZONE 3 audio, volume and balance
SC-81	ZONE 2 audio, volume, balance and tone



### HDBaseT™ Compatible (HDMI Extension via CAT5 Cable)

89

The AV receiver is equipped with an HDBaseT output terminal, which supports single-cable transmission of 4K, 3D, and full HD video and multi-channel audio. The HD video and audio signals are transmitted via the CAT5 cable, so they can be output to HDZONE rooms up to 328 ft away.



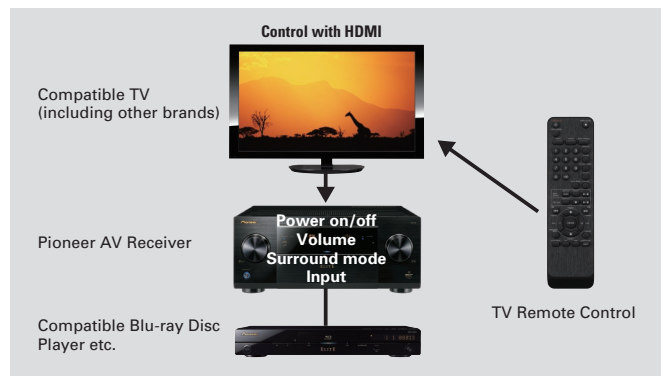
### Control with HDMI

89 87 85 82 81

HDMI connection with compatible products allows the following linked operations:

- Volume adjustment/mute of AV receiver via TV
- Automatic input change when TV channel is switched or playback starts on a player
- Linked power on/off with TV

\* For details on compatible TV and components, see [http://pioneer.jp/homeav/support/hdmi\\_cec/](http://pioneer.jp/homeav/support/hdmi_cec/)



2014 Pioneer PC Setup Application for Custom Installers

89 87 85 82 81

This Windows application is a dedicated tool for custom installers, and is not intended for end users. It allows you to access and edit AV receiver's settings through various connection methods. The settings can be stored as files for backup and data management.

Main Features:

- AV receiver default setting management (create, edit, overwrite, save)
- AV receiver control
- AV receiver status display on application
- "Detect difference" function for comparing edited data with backup
- Multiple backup functions
  1. First (normal) backup stores latest setup
  2. Second backup stores original settings by the installer

The second backup feature is especially useful when the user wants to revert back to the original settings made by the installer.

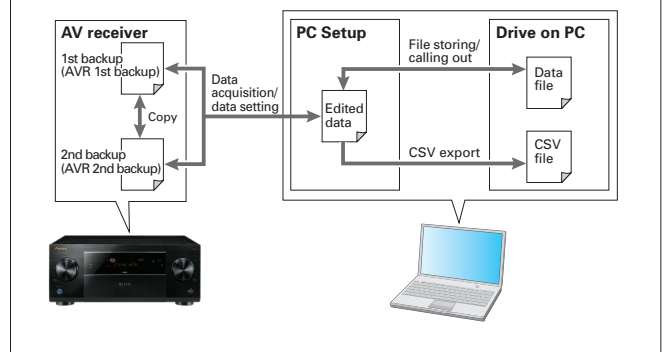
Ways to Connect to the AV Receiver

1. Via local LAN connection (auto/manual) for direct communication
2. Through the internet for remote operation
3. By COM port for data transmission by RS-232C connection
4. Opening a stored file
5. By stand-alone mode for displaying AV receiver's default values

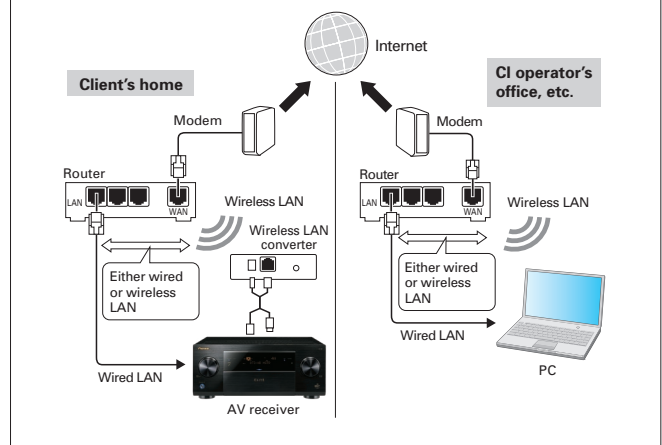
Required PC environment for using Pioneer PC Setup

OS	Edition	Service Pack
Windows 8	Windows 8 Pro	—
	Windows 8	—
Windows 7	Home Premium	SP1
	Professional	SP1
	Ultimate	SP1
Windows Vista	Home Basic	SP2
	Home Premium	SP2
	Ultimate	SP2
Windows XP	Professional	SP3
	Home Edition	SP3

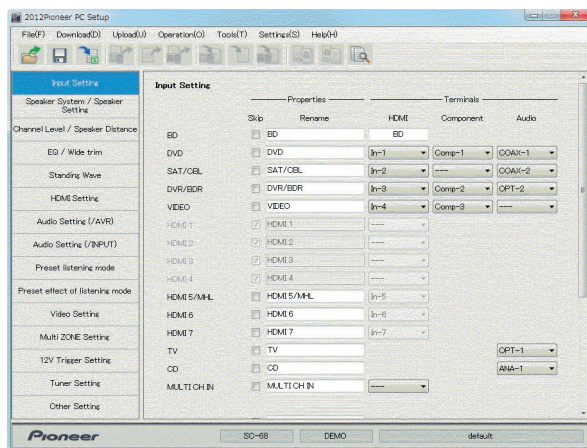
DFD (Data Flow Diagram) between PC Setup and the AV receiver



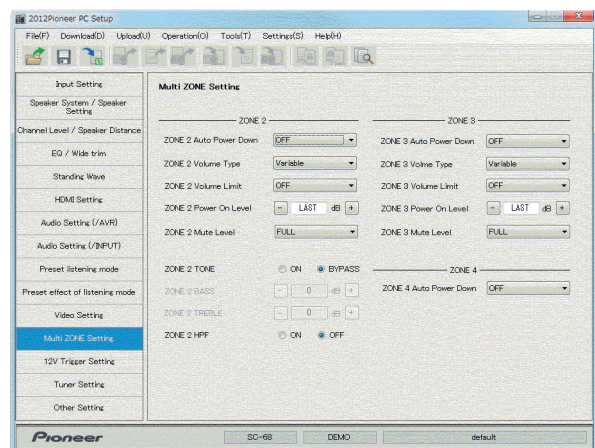
Remote Connection via the Internet



Input Setting Screen



Multi ZONE Setting Screen

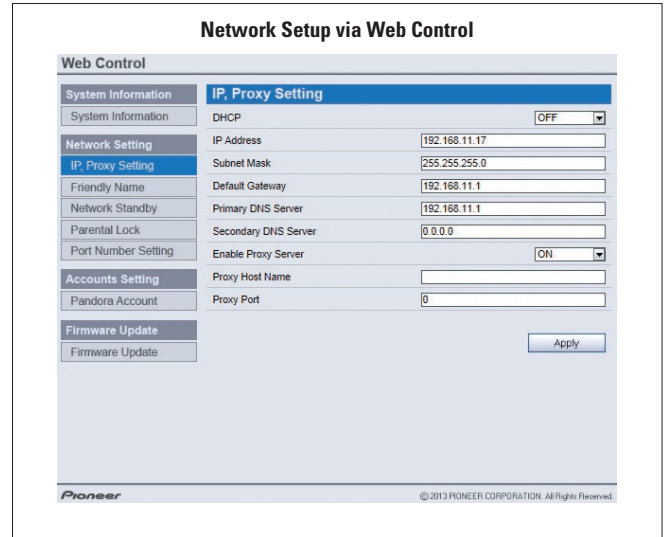


Advanced Multi-Channel Stereophonic Philosophy  
 Audio Technologies  
 Video Technologies  
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 Sophisticated Listening Modes  
 Connectivity  
 Network Features  
 Advanced Control  
 Construction

### Network Setup via Web Control

89 87 85 82 81

By entering the AV receiver’s IP address on the web browser, you can access the Web Control function to change the AV receiver’s network settings. You can also easily setup Pandora accounts by typing in your username and password on the PC keyboard.

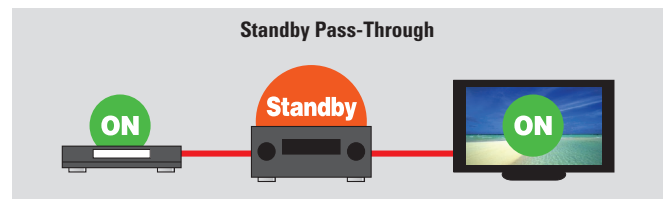


### Standby Pass-Through without CEC

89 87 85 82 81

With standby pass-through, the AV receiver can pass audio and video signals via HDMI even during standby. This feature is useful when you want to access HDMI-connected components without turning on the AV receiver.

\* Control with HDMI needs to be turned off



### HDMI Standby Input Switching

89 87 85 82 81

The function switches input source when the primary signal is cut off, and switches back to the primary input when the primary signal reappears.

### Auto Power Down

89 87 85 82 81

The AV receiver will automatically turn off after being left uncontrolled for a certain time set by the user. This function is available for each zone.

### Power Save for HDMI Standby Through

89 87 85 82 81

Power Save for HDMI Standby Through reduces energy consumption while the AV receiver is on standby.

### Simple Overlay OSD

89 87 85 82 81

Even when the front FL display is not visible, users can see the AV receiver's operation status on the TV screen. The audio/video parameters can be adjusted while you actually listen to the sound or see the image — an useful feature if you use a projector, or have the AV receiver hidden inside a cabinet.



### GUI for Smooth Operation

89 87 85 82 81

The GUI on the latest AV receivers has been further refined, resulting in enhanced ease-of-use. Each function has a dedicated GUI screen, displaying, for instance, iPod/iPhone data, speaker settings, or EQ adjustments, in 7 selectable languages — English, French, Italian, German, Spanish, Dutch, and Russian.

#### GUI Images

Channel : Front M1.MEMORY 1  
 Frequency : ALL SYMMETRY  
 Calibration : After

16 kHz 63.0 dB  
 8 kHz 61.0  
 4 kHz 59.0  
 2 kHz 57.0  
 1 kHz 55.0  
 500 Hz 53.0  
 250 Hz  
 125 Hz  
 63 Hz

Displays the data after calibration.

Exit Return

Reverb Characteristic

Top Menu  
 Play 2:04 -1:51  
 1 / 3  
 Gary Simpson  
 Greatest hits  
 Now Playing  
 Genre : Rock  
 Chapter Number :

iPod CTRL List

iPod/iPhone

7.1ch + ZONE 2

Front : Normal  
 Center : Normal  
 Surr : Normal  
 SB : Normal  
 ZONE 2 : Normal

Surr Pos. : IN REAR

OK

Set this for stereo playback in another room.  
 The main side is a system including  
 surround back speakers.

Exit Return

Zone 2

Ch: L

0.0 +6.5 +3.5 -2.0 -3.5 -5.0 +1.5 +5.0 +0.5 +3.5

MCACC  
 M1.MEMORY 1

63 [Hz] 125 [Hz] 250 [Hz] 500 [Hz] 1k [Hz] 2k [Hz] 4k [Hz] 8k [Hz] 16k [Hz] TRIM

Exit Return

EQ Adjustments



### Advanced Direct Construction

89 87 85 82 81

Less is more in circuitry design. Advanced Direct Construction allows the shortest and simplest signal paths — from input to output, circuit block by circuit block — to reduce distortion that can be caused by transmission loss, and to improve sonic clarity.

### 3D Space Frame Construction

89 87

The 3D Space Frame Construction is developed to clearly define the mechanical grounding of the chassis and make the structure strong enough to support heavy weight. Perfected by repeated CAE strength analysis and tests, this technology allows each part to deliver maximum performance. Interference is also reduced by separating and insulating the power supply, amp, analog circuit, digital circuit and video sections from one another.

The AV receivers come with this Advanced 3D Space Frame structure, featuring precise framework design, separating the power supply block, and isolating the analog video/audio and digital functional blocks into specific compartments. This reduces interference by flat cables between the blocks and improves the operating characteristics to accurately reproduce even the most delicate signals.

### Rigid Trans-Stabilizer

89 87 85 82

The rigid trans-stabilizer acoustically insulates the transformer and eliminates unwanted vibration, enhancing sound clarity.

### Independent Power Supply System

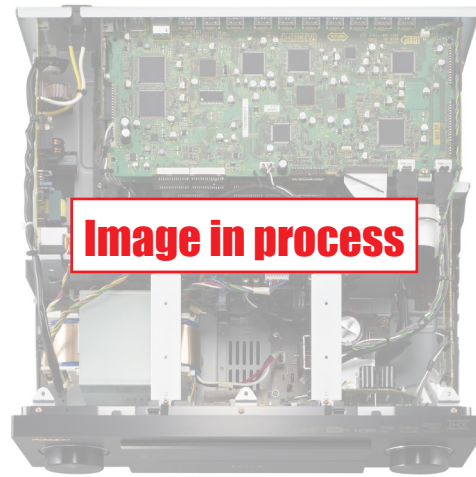
89 87 85 82 81

The analog and digital power supply are separated to eliminate interference between the two, and to provide clean power to the analog circuit, while bringing out maximum performance from the power amplifier for quality sound reproduction.

### Clean Grounding and High-Grade Parts

89 87 85 82 81

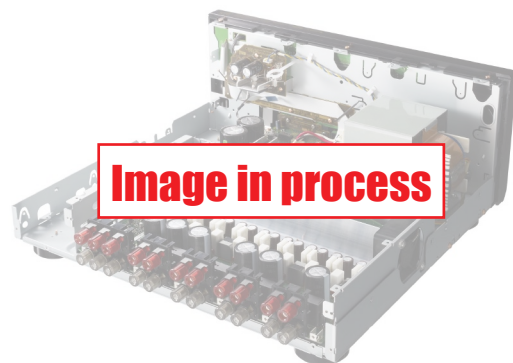
The Direct Power FET features drastically fewer wire bonding and terminals, realizing clean grounding with less noise. Each part has undergone meticulous improvement to provide outstanding performance. The AV receivers also feature a lower center of gravity for enhanced stability.



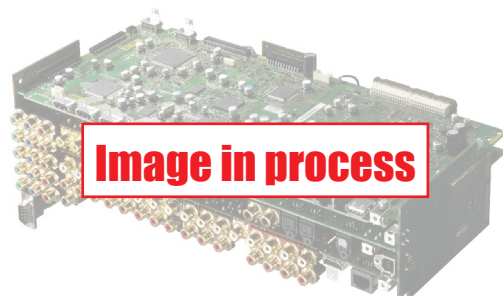
Internal View (SC-89)



Rigid Trans-Stabilizer



Pre-Amplifier Block (SC-89)



Power Amplifier Block (SC-89)

**FEATURE COMPARISON: AV RECEIVERS**

	SC-89	SC-87	SC-85	SC-82	SC-81
<b>Advanced Multi-Channel Stereophonic Philosophy</b>					
Direct Energy HD Amplifier	•	•	•	•	•
Low Leakage Flux Transformer	•	•	•	•	•
Hi-bit32 Audio Processing	•	•	•	•	•
Hi-bit24 Audio Processing	•	•	•	•	•
Digital Filter	•	•	•	•	•
Up-Sampling (192 kHz/32-bit)	•	•	•	•	•
MCACC Auto Room Tuning	• (MCACC Pro)	• (MCACC Pro)	• (MCACC Pro)	• (Advanced MCACC)	• (Advanced MCACC)
Phase Control	•	•	•	•	•
Auto Phase Control Plus	•	•	•	•	•
Speaker Polarity Check	•	•	•	•	•
Standing Wave Control	•	•	•	•	•
Subwoofer EQ	•	•	•	•	•
Independent Dual Subwoofer Output	•	•	•	•	•
Full Band Phase Control	•	•	•	•	•
Precision Distance	•	•	•	•	•
AIR Studios Sound Tuning	•	•	•	•	•
<b>Audio Technologies</b>					
ESS SABRE <sup>2</sup> Ultra DAC	•	•	•	•	•
Advanced Sound Retriever	• (Multi-ch)	• (Multi-ch)	• (Multi-ch)	• (Multi-ch)	• (Multi-ch)
Auto Sound Retriever/Auto Sound Retriever for ARC	•	•	•	•	•
Sound Retriever Link	•	•	•	•	•
Sound Retriever AIR	•	•	•	•	•
Auto Level Control	• (Multi-ch)	• (Multi-ch)	• (Multi-ch)	• (Multi-ch)	• (Multi-ch)
PQLS with HDMI (Bit-stream/Multi-Surround/2ch Audio)	•	•	•	•	•
<b>Video Technologies</b>					
Ultra HD (4K/60p) Upscaling/Pass Through	•	•	•	•	•
Stream Smoother	•	•	•	•	•
Stream Smoother Link	•	•	•	•	•
Advanced Video Adjust	•	•	•	•	•
Highly Precise I/P Conversion	•	•	•	•	•
Triple HD Video Noise Reduction	•	•	•	•	•
Deep Color/x.v.Color <sup>+</sup>	•	•	•	•	•
<b>Audio Formats &amp; Licenses</b>					
Dolby Atmos <sup>+</sup> Upgradable	•	•	•	•	•
Dolby TrueHD	•	•	•	•	•
Dolby TrueHD Loudness Management	•	•	•	•	•
DTS-HD Master Audio	•	•	•	•	•
DTS Neo:X	•	•	•	•	•
DTS Neo:X   7.1	•	•	•	•	•
Hi-Res Audio File Playback via USB/Network	•	•	•	•	•
Multi-Channel Audio File Playback via USB/Network	•	•	•	•	•
Native DSD Playback via USB-DAC with DoP Transmission	•	•	•	•	•
DSD Music File Playback via USB	•	•	•	•	•
DSD Disc (SACD) Playback via HDMI	•	•	•	•	•
Variable File Play Action	•	•	•	•	•
Gapless Playback	•	•	•	•	•
<b>Sophisticated Listening Modes</b>					
Various Speaker Settings	•	•	•	•	•
Wide Surround	•	•	•	•	•
Dolby Pro Logic IIz	•	•	•	•	•
Virtual Speakers	•	•	•	•	•
Virtual Depth	•	•	•	•	•
9ch Speaker Configurations	•	•	•	•	•
Pre-Amp Mode	•	•	•	•	•
Advanced Surround Modes	•	•	•	•	•
Front Stage Surround Advance	• (Focus)	• (Focus)	• (Focus)	• (Focus)	• (Focus)
Optimum Surround	•	•	•	•	•
<b>Connectivity</b>					
USB-DAC	•	•	•	•	•
HDMI <sup>®</sup> (4K@60, 3D, ARC)	•	•	•	•	•
Made for iPod and iPhone	•	•	•	•	•
iPod Digital Transmission via Front USB	•	•	•	•	•
Android™ Audio/Video Playback with MHL™	•	•	•	•	•
Front USB Input	•	•	•	•	•
<b>Network Features</b>					
Apple AirPlay Certified	•	•	•	•	•
DLNA Certified™ (1.5)	•	•	•	•	•
HTC Connect™ Certified	•	•	•	•	•
Compatible with Windows® 8.1	• (Windows 8)	•	•	•	•
Internet Radio (vTuner)	•	•	•	•	•
Pandora® Internet Radio	•	•	•	•	•
Spotify® Digital Music-Streaming Service Ready	•	•	•	•	•
Roku Ready®	•	•	•	•	•
<b>Advanced Control</b>					
Ready for iControlAV5 App	•	•	•	•	•
Bluetooth Ready	•	•	•	•	•
Built-in AV Navigator/AVNavigator for iPad	•	•	•	•	•
Wireless LAN Converter Ready	•	•	•	•	•
Powered HDMI ZONE Out (Powered HDZONE)	•	•	•	•	•
Multi-Zone	4 Zone	4 Zone	4 Zone (Zone 3 analog audio only)	4 Zone (Zone 3 analog audio only)	3 Zone
HDBase™ Compatible	•	•	•	•	•
Control with HDMI	•	•	•	•	•
2014 Pioneer PC Setup	•	•	•	•	•
Network Setup via Web Control	•	•	•	•	•
Standby Pass-Through without CEC	•	•	•	•	•
HDMI Standby Input Switching	•	•	•	•	•
Auto Power Down	•	•	•	•	•
Power Save for HDMI Standby Through	•	•	•	•	•
Simple Overlay OSD	•	•	•	•	•
GUI	•	•	•	•	•
<b>Construction</b>					
Advanced Direct Construction	•	•	•	•	•
3D Space Frame Construction	•	•	•	•	•
Rigid Trans-Stabilizer	•	•	•	•	•
Independent Power Supply System	•	•	•	•	•
Clean Grounding and High-Grade Parts	•	•	•	•	•

# **Product Sheet**

**SC-89/CUXJ**

**SC-87/CUXJ**

**SC-85/CUXJ**

**SC-82/CUXJ**

**SC-81/CUXJ**



## AMPLIFICATION

- > Channels: 9
- > Amplification Type: Class D<sup>3</sup> (Direct Energy HD)
- > 850 W Multi ch Simultaneous Drive (8 ohms, 1 kHz, THD 1.0 %)
- > 255 W/ch (4 ohms, 1 kHz, THD 1.0 %, 2 ch Driven)
- > 200 W/ch (6 ohms, 1 kHz, THD 1.0 %, 2 ch Driven FTC)
- > 140 W/ch (8 ohms, 1 kHz, THD 0.08 %, 2 ch Driven FTC)

## CONSTRUCTION DESIGN

- > Advanced Direct Construction
- > Rigid Trans-Stabilizer
- > Insulated Dual Chassis
- > 3D Space Frame Construction
- > Low Leakage Flux Power Transformer

## AUDIO FEATURES

- > AIR Studios Monitor Certification
- > Dolby Atmos<sup>®</sup> Upgradable\*<sup>1</sup>
- > Dolby<sup>®</sup> TrueHD/Dolby Digital Plus/Dolby Surround
- > DTS-HD Master Audio/DTS-ES/DTS Neo:X
- > USB-DAC 192 kHz/32-bit with DSD Native Playback
- > DSD Direct Playback via USB Memory Devices (5.6 MHz, 2.8 MHz)
- > DSD Disc (SACD) Playback via HDMI (2.8 MHz)
- > Digital Core Engine with Texas Instruments Aureus<sup>™</sup> DSP
- > SABRE<sup>32</sup> Ultra DAC (ES9016+ES9016) for 9.2ch
- > Audio Scaler 192 kHz/32-bit Enhancer
- > HDMI<sup>®</sup> Audio Return Channel
- > Pioneer MCACC Pro Room Calibration
  - Full Band Phase Control
  - Auto Phase Control Plus/Phase Control Plus
  - Standing Wave Control
  - 3D Time Axis Measurement
  - Precision Distance
  - Polarity Check
  - Automatic Crossover Detection
  - Reverb Before and After Calibration Results (AVNavigator for iPad)
  - Subwoofer EQ (4 Band)
  - Independent Dual Subwoofer Output
- > Pioneer Sound Enhancements
  - PQLS Bit-stream/Multi-Surround/2ch
  - Advanced Sound Retriever (Multi-ch)
  - Sound Retriever Link
  - Auto Sound Retriever/Auto Sound Retriever for ARC
  - Auto Level Control (Multi-Channel)
  - Optimum Surround (Auto Bass, Dialog, and Surround Balancing)
  - Virtual Speakers (Wide/Height/Surround Back)
  - Virtual Depth
- > Advanced Surround Modes
  - Action, Drama, Advanced Game, Sports, Classical, Rock/Pop
  - Front Stage Surround, Extended Stereo

- Sound Retriever Air, Phones Surround
- ECO Mode 1, ECO Mode 2
- > Input Volume Absorber
- > Speaker System 14 Patterns Including 3 New Patterns for Dolby Atmos

## VIDEO FEATURES

- > HDMI 8 in/4 out (2 for MAIN, 2 for MAIN/HDZONE)
- > Ultra HD Upscaling and Pass-through (4K/60p/4:4:4/24-bit\*<sup>2</sup>, 4K/24p/4:4:4/36-bit, 4K/60p/4:2:2/36-bit\*<sup>2</sup>)
- > Video Scaler with Qdeo<sup>™</sup>
- > 3D Ready (Blu-ray Disc<sup>®</sup>, Broadcast and Games)
- > Deep Color (36-bit) and "x.v.Color"
- > Triple HD Noise Reduction
- > Advanced Video Adjust
- > Stream Smoother
- > Stream Smoother Link
- > Frame Rate Conversion

## HOME NETWORK FEATURES

- > Apple AirPlay Certified
- > DLNA Certified<sup>™</sup> (1.5)
- > HTC Connect<sup>™</sup> Certified
- > Windows<sup>®</sup> 8 Compatible
- > Music File Playback/Seek\*<sup>3</sup> via Network/USB: AIFF, Apple Lossless, WAV, FLAC, MP3, WMA, AAC, DSD
  - 192 kHz/24-Bit Audio playback (AIFF, WAV, FLAC)
  - Multi-Channel (5.1ch, 5.0ch) Audio Playback\*<sup>4</sup> (WAV, FLAC)
- > Gapless Playback for AIFF, Apple Lossless, WAV\*<sup>5</sup>, FLAC\*<sup>5</sup>, AAC, MP3
- > Pandora<sup>®</sup> Internet Radio\*<sup>6</sup>
- > Spotify<sup>®</sup> Digital Music-Streaming Service Ready\*<sup>7</sup>
- > Roku Ready\*<sup>8</sup>
- > Internet Radio with vTuner
- > Play Zone Selection

## CONVENIENCE FEATURES

- > HDBaseT<sup>™</sup> Compatible (HDMI Extension via CAT5 Cable)
- > iPod Digital Transmission via Front USB Terminal
- > Android<sup>™</sup> Audio/Video Playback with MHL<sup>™</sup>
- > Built-in AVNavigator (Wiring Navi, Interactive Operation Guide and Network Setup)
- > HDMI/HDBaseT ZONE Out (HDZONE)
- > Charges iPod/iPhone
- > iControlAV5 Remote Control App Ready\*<sup>9</sup>
- > Wireless LAN Converter Ready (optional AS-WL300 required)
- > Bluetooth<sup>®</sup> Adapter Ready (optional AS-BT200 required)
- > Firmware Update via Internet or USB
- > Graphic User Interface (GUI) with Album Artwork (HDMI only)
- > Auto Power Down for Each Zone
- > Power Save for HDMI Standby Through
- > AM/FM Tuner 63 Presets
- > Sleep Timer
- > Learning Remote Control (Illumination)

\*<sup>1</sup> Firmware update required. Firmware update available by end of 2014. \*<sup>2</sup> BD IN, IN 1, IN 2 HDMI input only \*<sup>3</sup> Except DSD files \*<sup>4</sup> Up to 96 kHz streams  
 \*<sup>5</sup> Except multi-ch audio streaming \*<sup>6</sup> Service only available in the U.S. \*<sup>7</sup> For service availability in your country, check [www.spotify.com](http://www.spotify.com) \*<sup>8</sup> Separately sold Roku Streaming Stick<sup>™</sup> required  
 \*<sup>9</sup> Available for free download from the App Store<sup>™</sup> for iPod touch/iPhone/iPad. Also available from the Google Play<sup>™</sup> Store for Android devices.

# SC-89

## CONNECTIONS

### REAR PANEL



SC-89/CUXJ



## FRONT TERMINALS

- HDMI 1 In
- USB 1 in for iPod/iPhone, USB Drive
- MCACC Setup Mic In
- Phones 1 Out

## REAR TERMINALS

- HDMI 7 in (7 assignable, 1 for HDMI/MHL)
- HDMI 4 out (2 for MAIN, 2 for MAIN/HDZONE, 1 for HDBaseT™)
- Ethernet 1 In
- AV (Composite) 2 In/1 Out

- Audio 1 In (assignable)
- Phono (MM) 1 In
- Digital Coaxial 2 In (assignable)
- Digital Optical 2 In (assignable)/1 Out
- USB-DAC In (B-Type)
- Component Video 2 In (assignable)
- Monitor Component 1 Out/Monitor Composite 1 Out
- Preout 9.2 ch (11.2 ch terminals)
- Speaker 11 ch Out
- Independent Dual Subwoofer
- Bluetooth Adapter Port for AS-BT200
- USB Charge Port for AS-WL300 Wireless LAN Converter
- IR 2 In/1 Out
- 12 V Trigger x 2/RS-232C

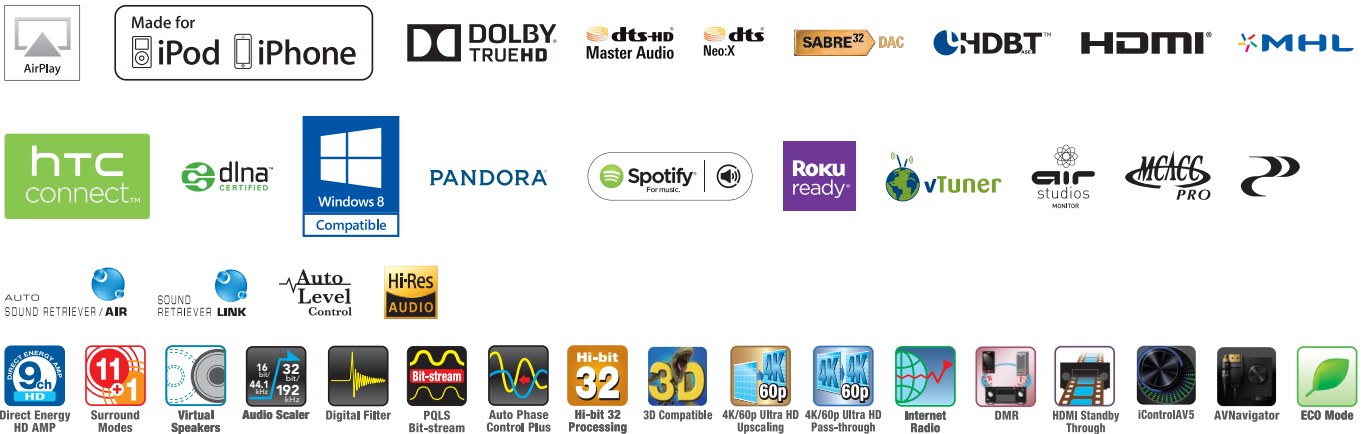
## ZONE FEATURES

- HDZONE HDMI, HDZONE HDBaseT for Audio and Video
- ZONE 2 Audio, Subwoofer, Volume, Balance and Tone
- ZONE 3 Audio, Volume and Balance
- Powered ZONE 2/ZONE 3/HDZONE
- Multi-ZONE Music Feature

## SPECIFICATIONS

- Power Requirements: AC 120 V, 60 Hz
- Power Consumption: 370 W/0.1 W (Standby)
- Dimensions (W x H x D): 17-1/8 x 7-5/16 x 17-3/8 inches (435 x 185 x 441 mm)
- Weight: 38 lbs. 13 oz. (17.6 kg)

## INTEGRATED TECHNOLOGIES



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 AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion or later, and PC with iTunes 10.2.2 or later.  
 "Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.  
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 Spotify and the Spotify logo are trademarks of the Spotify Group, registered in the U.S. and other countries.  
 Roku and the Roku Ready logo are registered trademarks of Roku, Inc. in the United States and other countries.  
 vTuner is a registered trademark of Nothing Else Matters Software, Ltd.  
 Phase Control is a trademark placed on a product with Pioneer's Phase Control Technology concept. The technology enables high-grade sound reproduction environment by improving the phase matching for each of the components.  
 For details on iPod compatibility, visit <http://pioneer.jp/homeav/support/ios/na/>



## AMPLIFICATION

- › Channels: 9
- › Amplification Type: Class D<sup>3</sup> (Direct Energy HD)
- › 810 W Multi ch Simultaneous Drive (8 ohms, 1 kHz, THD 1.0 %)
- › 240 W/ch (4 ohms, 1 kHz, THD 1.0 %, 2 ch Driven)
- › 190 W/ch (6 ohms, 1 kHz, THD 1.0 %, 2 ch Driven FTC)
- › 140 W/ch (8 ohms, 1 kHz, THD 0.08 %, 2 ch Driven FTC)

## CONSTRUCTION DESIGN

- › Advanced Direct Construction
- › Rigid Trans-Stabilizer
- › Insulated Dual Chassis
- › 3D Space Frame Construction

## AUDIO FEATURES

- › AIR Studios Monitor Certification
- › Dolby Atmos<sup>®</sup> Upgradable\*<sup>1</sup>
- › Dolby<sup>®</sup> TrueHD/Dolby Digital Plus/Dolby Surround
- › DTS-HD Master Audio/DTS-ES/DTS Neo:X
- › DSD Direct Playback via USB Memory Devices (5.6 MHz, 2.8 MHz)
- › DSD Disc (SACD) Playback via HDMI (2.8 MHz)
- › Digital Core Engine with Texas Instruments Aureus<sup>™</sup> DSP
- › SABRE<sup>32</sup> Ultra DAC (ES9016+ES9016) for 9.2ch
- › Audio Scaler 192 kHz/32-bit Enhancer
- › HDMI<sup>®</sup> Audio Return Channel
- › Pioneer MCACC Pro Room Calibration
  - Full Band Phase Control
  - Auto Phase Control Plus/Phase Control Plus
  - Standing Wave Control
  - 3D Time Axis Measurement
  - Polarity Check
  - Automatic Crossover Detection
  - Reverb Before and After Calibration Results (AVNavigator for iPad)
  - Subwoofer EQ (4 Band)
  - Independent Dual Subwoofer Output
- › Pioneer Sound Enhancements
  - PQLS Bit-stream/Multi-Surround/2ch
  - Advanced Sound Retriever (Multi-ch)
  - Sound Retriever Link
  - Auto Sound Retriever/Auto Sound Retriever for ARC
  - Auto Level Control (Multi-Channel)
  - Optimum Surround (Auto Bass, Dialog, and Surround Balancing)
  - Virtual Speakers (Wide/Height/Surround Back)
  - Virtual Depth
- › Advanced Surround Modes
  - Action, Drama, Advanced Game, Sports, Classical, Rock/Pop
  - Front Stage Surround, Extended Stereo
  - Sound Retriever Air, Phones Surround
  - ECO Mode 1, ECO Mode 2

- › Input Volume Absorber
- › Speaker System 14 Patterns Including 3 New Patterns for Dolby Atmos

## VIDEO FEATURES

- › HDMI 8 in/3 out (2 for MAIN, 1 for MAIN/HDZONE)
- › Ultra HD Upscaling and Pass-through (4K/60p/4:4:4/24-bit\*<sup>2</sup>, 4K/24p/4:4:4/36-bit, 4K/60p/4:2:2/36-bit\*<sup>2</sup>)
- › Video Scaler with Qdeo<sup>™</sup>
- › 3D Ready (Blu-ray Disc<sup>®</sup>, Broadcast and Games)
- › Deep Color (36-bit) and "x.v.Color"
- › Triple HD Noise Reduction
- › Advanced Video Adjust
- › Stream Smoother
- › Stream Smoother Link
- › Frame Rate Conversion

## HOME NETWORK FEATURES

- › Apple AirPlay Certified
- › DLNA Certified<sup>™</sup> (1.5)
- › HTC Connect<sup>™</sup> Certified
- › Windows<sup>®</sup> 8.1 Compatible
- › Music File Playback/Seek\*<sup>3</sup> via Network/USB: AIFF, Apple Lossless, WAV, FLAC, MP3, WMA, AAC, DSD
  - 192 kHz/24-Bit Audio playback (AIFF, WAV, FLAC)
  - Multi-Channel (5.1ch, 5.0ch) Audio Playback\*<sup>4</sup> (WAV, FLAC)
- › Gapless Playback for AIFF, Apple Lossless, WAV\*<sup>5</sup>, FLAC\*<sup>5</sup>, AAC, MP3
- › Pandora<sup>®</sup> Internet Radio\*<sup>6</sup>
- › Spotify<sup>®</sup> Digital Music-Streaming Service Ready\*<sup>7</sup>
- › Roku Ready\*<sup>8</sup>
- › Internet Radio with vTuner
- › Play Zone Selection

## CONVENIENCE FEATURES

- › iPod Digital Transmission via Front USB Terminal
- › Android<sup>™</sup> Audio/Video Playback with MHL<sup>™</sup>
- › Built-in AVNavigator (Wiring Navi, Interactive Operation Guide and Network Setup)
- › HDMI ZONE Out (HDZONE)
- › Charges iPod/iPhone
- › iControlAV5 Remote Control App Ready\*<sup>9</sup>
- › Wireless LAN Converter Ready (optional AS-WL300 required)
- › Bluetooth<sup>®</sup> Adapter Ready (optional AS-BT200 required)
- › Firmware Update via Internet or USB
- › Graphic User Interface (GUI) with Album Artwork (HDMI only)
- › Auto Power Down for Each Zone
- › Power Save for HDMI Standby Through
- › AM/FM Tuner 63 Presets
- › Sleep Timer
- › Learning Remote Control (Illumination)

\*<sup>1</sup> Firmware update required. Firmware update available by end of 2014. \*<sup>2</sup> BD IN, IN 1, IN 2 HDMI input only \*<sup>3</sup> Except DSD files \*<sup>4</sup> Up to 96 kHz streams  
 \*<sup>5</sup> Except multi-ch audio streaming \*<sup>6</sup> Service only available in the U.S. \*<sup>7</sup> For service availability in your country, check [www.spotify.com](http://www.spotify.com) \*<sup>8</sup> Separately sold Roku Streaming Stick<sup>™</sup> required  
 \*<sup>9</sup> Available for free download from the App Store<sup>™</sup> for iPod touch/iPhone/iPad. Also available from the Google Play<sup>™</sup> Store for Android devices.

# SC-87

## CONNECTIONS

REAR PANEL



SC-87/CUXJ



## FRONT TERMINALS

- HDMI 1 In
- USB 1 in for iPod/iPhone, USB Drive
- MCACC Setup Mic In
- Phones 1 Out

## REAR TERMINALS

- HDMI 7 in (7 assignable, 1 for HDMI/MHL)
- HDMI 3 out (2 for MAIN, 1 for MAIN/HDZONE)
- Ethernet 1 In

- AV (Composite) 2 In/1 Out
- Audio 1 In (assignable)
- Phono (MM) 1 In
- Digital Coaxial 2 In (assignable)
- Digital Optical 2 In (assignable)/1 Out
- Component Video 2 In (assignable)
- Monitor Component 1 Out/Monitor Composite 1 Out
- Preout 9.2 ch (11.2 ch terminals)
- Speaker 11 ch Out
- Independent Dual Subwoofer
- Bluetooth Adapter Port for AS-BT200
- USB Charge Port for AS-WL300 Wireless LAN Converter
- IR 2 In/1 Out
- 12 V Trigger x 2/RS-232C

## CUSTOM CONTROL PARTNERS



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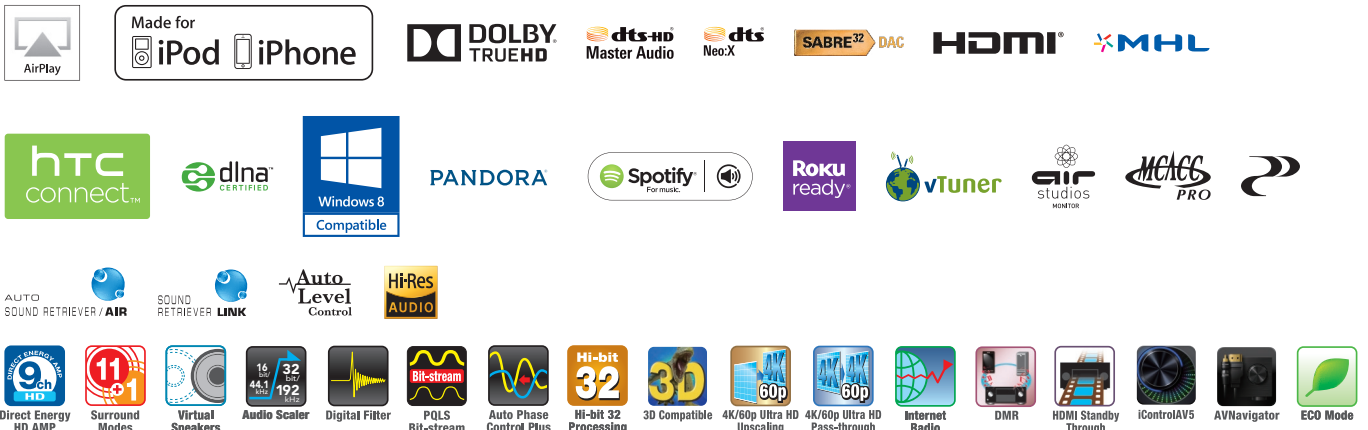
## ZONE FEATURES

- HDZONE HDMI for Audio and Video
- ZONE 2 Audio, Subwoofer, Volume, Balance and Tone
- ZONE 3 Audio, Volume and Balance
- Powered ZONE 2/ZONE 3/HDZONE
- Multi-ZONE Music Feature

## SPECIFICATIONS

- Power Requirements: AC 120 V, 60 Hz
- Power Consumption: 370 W/0.1 W (Standby)
- Dimensions (W x H x D): 17-1/8 x 7-5/16 x 17-3/8 inches (435 x 185 x 441 mm)
- Weight: 38 lbs. 10 oz. (17.5 kg)

## INTEGRATED TECHNOLOGIES



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# SC-85

9.2-Channel ELITE AV Receiver Featuring Class D<sup>3</sup> Amplifier, Dolby Atmos<sup>®</sup> Upgradable, Ultra HD (4K/60p/4:4:4/24-bit) Upscaling/Pass-through, and SABRE<sup>32</sup> Ultra DAC



## AMPLIFICATION

- › Channels: 9
- › Amplification Type: Class D<sup>3</sup> (Direct Energy HD)
- › 760 W Multi ch Simultaneous Drive (8 ohms, 1 kHz, THD 1.0 %)
- › 220 W/ch (4 ohms, 1 kHz, THD 1.0 %, 2 ch Driven)
- › 175 W/ch (6 ohms, 1 kHz, THD 1.0 %, 2 ch Driven FTC)
- › 135 W/ch (8 ohms, 1 kHz, THD 0.08 %, 2 ch Driven FTC)

## CONSTRUCTION DESIGN

- › Advanced Direct Construction
- › Rigid Trans-Stabilizer
- › Insulated Dual Chassis

## AUDIO FEATURES

- › Dolby Atmos<sup>®</sup> Upgradable\*<sup>1</sup>
- › Dolby<sup>®</sup> TrueHD/Dolby Digital Plus/Dolby Surround
- › DTS-HD Master Audio/DTS-ES/DTS Neo:X
- › DSD Direct Playback via USB Memory Devices (5.6 MHz, 2.8 MHz)
- › DSD Disc (SACD) Playback via HDMI (2.8 MHz)
- › Digital Core Engine with Texas Instruments Aureus<sup>™</sup> DSP
- › SABRE<sup>32</sup> Ultra DAC (ES9016+E9016) for 9.2ch
- › Audio Scaler 192 kHz/32-bit Enhancer
- › HDMI<sup>®</sup> Audio Return Channel
- › Pioneer MCACC Pro Room Calibration
  - Full Band Phase Control
  - Auto Phase Control Plus/Phase Control Plus
  - Standing Wave Control
  - 3D Time Axis Measurement
  - Polarity Check
  - Automatic Crossover Detection
  - Reverb Before and After Calibration Results (AVNavigator for iPad)
  - Subwoofer EQ (4 Band)
  - Independent Dual Subwoofer Output
- › Pioneer Sound Enhancements
  - PQLS Bit-stream/Multi-Surround/2ch
  - Advanced Sound Retriever (Multi-ch)
  - Sound Retriever Link
  - Auto Sound Retriever/Auto Sound Retriever for ARC
  - Auto Level Control (Multi-Channel)
  - Optimum Surround (Auto Bass, Dialog, and Surround Balancing)
  - Virtual Speakers (Wide/Height/Surround Back)
  - Virtual Depth
- › Advanced Surround Modes
  - Action, Drama, Advanced Game, Sports, Classical, Rock/Pop
  - Front Stage Surround, Extended Stereo
  - Sound Retriever Air, Phones Surround
  - ECO Mode 1, ECO Mode 2
- › Input Volume Absorber
- › Speaker System 14 Patterns Including 3 New Patterns for Dolby Atmos

## VIDEO FEATURES

- › HDMI 8 in/3 out (2 for MAIN, 1 for MAIN/HDZONE)
- › Ultra HD Upscaling and Pass-through (4K/60p/4:4:4/24-bit\*<sup>2</sup>, 4K/24p/4:4:4/36-bit, 4K/60p/4:2:2/36-bit\*<sup>2</sup>)
- › Video Scaler with Qdeo<sup>™</sup>
- › 3D Ready (Blu-ray Disc<sup>®</sup>, Broadcast and Games)
- › Deep Color (36-bit) and "x.v.Color"
- › Triple HD Noise Reduction
- › Advanced Video Adjust
- › Stream Smoother
- › Stream Smoother Link
- › Frame Rate Conversion

## HOME NETWORK FEATURES

- › Apple AirPlay Certified
- › DLNA Certified<sup>™</sup> (1.5)
- › HTC Connect<sup>™</sup> Certified
- › Windows<sup>®</sup> 8.1 Compatible
- › Music File Playback/Seek\*<sup>3</sup> via Network/USB: AIFF, Apple Lossless, WAV, FLAC, MP3, WMA, AAC, DSD
  - 192 kHz/24-Bit Audio playback (AIFF, WAV, FLAC)
  - Multi-Channel (5.1ch, 5.0ch) Audio Playback\*<sup>4</sup> (WAV, FLAC)
- › Gapless Playback for AIFF, Apple Lossless, WAV\*<sup>5</sup>, FLAC\*<sup>5</sup>, AAC, MP3
- › Pandora<sup>®</sup> Internet Radio\*<sup>6</sup>
- › Spotify<sup>®</sup> Digital Music-Streaming Service Ready\*<sup>7</sup>
- › Roku Ready<sup>®</sup>\*<sup>8</sup>
- › Internet Radio with vTuner
- › Play Zone Selection

## CONVENIENCE FEATURES

- › iPod Digital Transmission via Front USB Terminal
- › Android<sup>™</sup> Audio/Video Playback with MHL<sup>™</sup>
- › Built-in AVNavigator (Wiring Navi, Interactive Operation Guide and Network Setup)
- › HDMI ZONE Out (HDZONE)
- › Charges iPod/iPhone
- › iControlAV5 Remote Control App Ready\*<sup>9</sup>
- › Wireless LAN Converter Ready (optional AS-WL300 required)
- › Bluetooth<sup>®</sup> Adapter Ready (optional AS-BT200 required)
- › Firmware Update via Internet or USB
- › Graphic User Interface (GUI) with Album Artwork (HDMI only)
- › Auto Power Down for Each Zone
- › Power Save for HDMI Standby Through
- › AM/FM Tuner 63 Presets
- › Sleep Timer
- › Learning Remote Control (Illumination)

\*<sup>1</sup> Firmware update required. Firmware update available by end of 2014. \*<sup>2</sup> BD IN, IN 1, IN 2 HDMI input only \*<sup>3</sup> Except DSD files \*<sup>4</sup> Up to 96 kHz streams  
\*<sup>5</sup> Except multi-ch audio streaming \*<sup>6</sup> Service only available in the U.S. \*<sup>7</sup> For service availability in your country, check [www.spotify.com](http://www.spotify.com) \*<sup>8</sup> Separately sold Roku Streaming Stick<sup>™</sup> required  
\*<sup>9</sup> Available for free download from the App Store<sup>™</sup> for iPod touch/iPhone/iPad. Also available from the Google Play<sup>™</sup> Store for Android devices.



# SC-85

9.2-Channel ELITE AV Receiver Featuring Class D<sup>3</sup> Amplifier, Dolby Atmos<sup>®</sup> Upgradable, Ultra HD (4K/60p/4:4:4/24-bit) Upscaling/Pass-through, and SABRE<sup>32</sup> Ultra DAC

## CONNECTIONS

REAR PANEL



SC-85/CUXJ



## FRONT TERMINALS

- › HDMI 1 In
- › USB 1 in for iPod/iPhone, USB Drive
- › MCACC Setup Mic In
- › Phones 1 Out

## REAR TERMINALS

- › HDMI 7 in (7 assignable, 1 for HDMI/MHL)
- › HDMI 3 out (2 for MAIN, 1 for MAIN/HDZONE)
- › Ethernet 1 In

- › AV (Composite) 2 In/1 Out
- › Audio 1 In (assignable)
- › Digital Coaxial 2 In (assignable)
- › Digital Optical 2 In (assignable)/1 Out
- › Component Video 2 In (assignable)
- › Monitor Component 1 Out/Monitor Composite 1 Out
- › Preout 9.2 ch (11.2 ch terminals)
- › Speaker 11 ch Out
- › Independent Dual Subwoofer
- › Bluetooth Adapter Port for AS-BT200
- › USB Charge Port for AS-WL300 Wireless LAN Converter
- › IR 2 In/1 Out
- › 12 V Trigger x 2/RS-232C

## CUSTOM CONTROL PARTNERS



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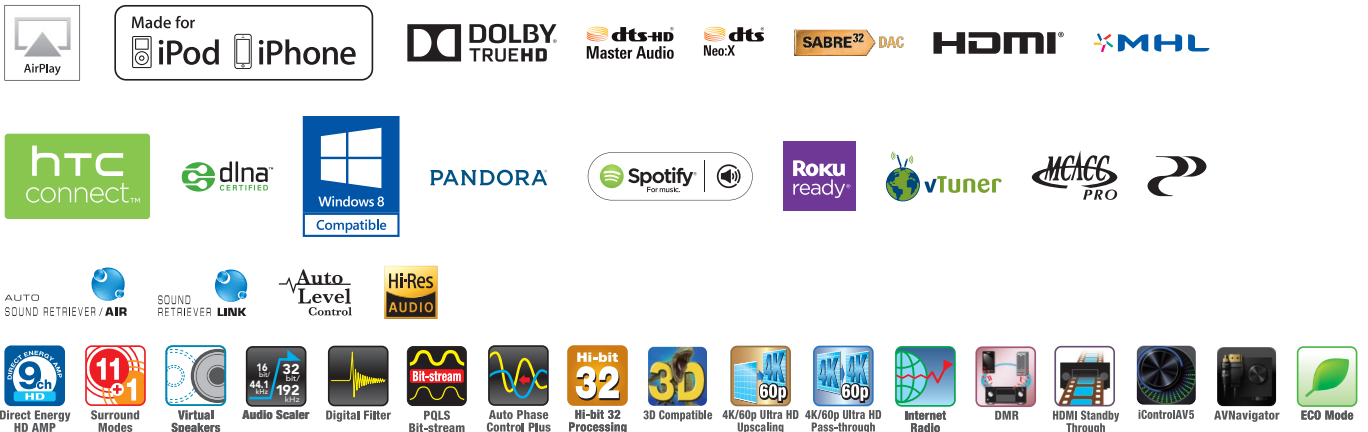
## ZONE FEATURES

- › HDZONE HDMI for Audio and Video
- › ZONE 2 Audio, Subwoofer, Volume, Balance and Tone
- › ZONE 3 Audio, Volume and Balance
- › Powered ZONE 2/ZONE 3/HDZONE
- › Multi-ZONE Music Feature

## SPECIFICATIONS

- › Power Requirements: AC 120 V, 60 Hz
- › Power Consumption: 330 W/0.1 W (Standby)
- › Dimensions (W x H x D): 17-1/8 x 7-5/16 x 17-3/8 inches (435 x 185 x 441 mm)
- › Weight: 33 lbs. 5 oz. (15.1 kg)

## INTEGRATED TECHNOLOGIES



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 The impedances indicated are actual values that speakers can present to an amplifier while playing back music. They do not refer to the nominal rated impedances of speakers you use.  
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 AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion or later, and PC with iTunes 10.2.2 or later.  
 "Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.  
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 Roku and the Roku Ready logo are registered trademarks of Roku, Inc. in the United States and other countries.  
 vTuner is a registered trademark of Nothing Else Matters Software, Ltd.  
 Phase Control is a trademark placed on a product with Pioneer's Phase Control Technology concept. The technology enables high-grade sound reproduction environment by improving the phase matching for each of the components.  
 For details on iPod compatibility, visit <http://pioneer.jp/homeav/support/ios/na/>



## AMPLIFICATION

- › Channels: 7
- › Amplification Type: Class D<sup>3</sup> (Direct Energy HD)
- › 660 W Multi ch Simultaneous Drive (8 ohms, 1 kHz, THD 1.0 %)
- › 210 W/ch (4 ohms, 1 kHz, THD 1.0 %, 2 ch Driven)
- › 170 W/ch (6 ohms, 1 kHz, THD 1.0 %, 2 ch Driven FTC)
- › 130 W/ch (8 ohms, 1 kHz, THD 0.08 %, 2 ch Driven FTC)

## CONSTRUCTION DESIGN

- › Advanced Direct Construction
- › Rigid Trans-Stabilizer
- › Insulated Dual Chassis

## AUDIO FEATURES

- › Dolby® TrueHD/Dolby Pro Logic IIz/Dolby Digital Plus
- › DTS-HD Master Audio/DTS-ES/DTS Neo:X | 7.1
- › DSD Music File Playback via Network/USB (2.8 MHz)
- › DSD Disc (SACD) Playback via HDMI (2.8 MHz)
- › Digital Core Engine with Texas Instruments Aureus™ DSP
- › Hi-bit24 Audio Processing
- › SABRE™ Premier Audio DAC (ES9006S) for 7.2ch
- › HDMI® Audio Return Channel
- › Pioneer Advanced MCACC Room Calibration
  - Phase Control
  - Auto Phase Control Plus/Phase Control Plus
  - Standing Wave Control
  - 3D Time Axis Measurement
  - Polarity Check
  - Automatic Crossover Detection
  - Reverb Before and After Calibration Results (AVNavigator for iPad)
  - Subwoofer EQ (4 Band)
- › Pioneer Sound Enhancements
  - PQLS Bit-stream/Multi-Surround/2ch
  - Advanced Sound Retriever (Multi-ch)
  - Sound Retriever Link
  - Auto Sound Retriever/Auto Sound Retriever for ARC
  - Auto Level Control (Multi-ch)
  - Virtual Speakers (Wide/Height/Surround Back)
  - Virtual Depth
- › Advanced Surround Modes
  - Action, Drama, Advanced Game, Sports, Classical, Rock/Pop
  - Front Stage Surround, Extended Stereo
  - Sound Retriever Air, Phones Surround
  - ECO Mode 1, ECO Mode 2
- › Input Volume Absorber

## VIDEO FEATURES

- › HDMI 7 in/2 out (1 for MAIN, 1 for MAIN/HDZONE)
- › 3D Ready (Blu-ray Disc®, Broadcast, and Games)
- › Deep Color (36-bit), "x.v. Color"
- › Ultra HD Upscaling and Pass-through (4K/60p/4:4:4/24-bit, 4K/24p/4:4:4/36-bit, 4K/60p/4:2:2/36-bit)
- › Video Scaler with Qdeo™
- › Video Conversion to HDMI
- › Triple HD Noise Reduction
- › Advanced Video Adjust
- › Stream Smoother
- › Stream Smoother Link
- › Frame Rate Conversion

## HOME NETWORK FEATURES

- › Apple AirPlay Certified
- › DLNA Certified™ (1.5)
- › HTC Connect™ Certified
- › Windows® 8.1 Compatible
- › Music File Playback/Seek\*1 via Network/USB: AIFF, Apple Lossless, WAV, FLAC, MP3, WMA, AAC, DSD
  - 192 kHz/24-Bit Audio playback (AIFF, WAV, FLAC)
  - Multi-Channel (5.1ch, 5.0ch) Audio Playback\*2 (WAV, FLAC)
- › Gapless Playback for AIFF, Apple Lossless, WAV\*3, FLAC\*3, AAC, MP3
- › Pandora® Internet Radio\*4
- › Spotify® Digital Music-Streaming Service Ready\*5
- › Roku Ready®\*6
- › Internet Radio with vTuner

## CONVENIENCE FEATURES

- › ENERGY STAR Qualified
- › iPod Digital Transmission via Front USB Terminal
- › Android™ Audio/Video Playback with MHL™
- › Built-in AVNavigator (Wiring Navi, Interactive Operation Guide and Network Setup)
- › HDMI ZONE Out (HDZONE) and Analog Audio Out (ZONE 2/ZONE 3)
- › Charges iPod/iPhone
- › iControlAV5 Remote Control App Ready (iOS/Android)\*7
- › Wireless LAN Converter Ready (optional AS-WL300 required)
- › Bluetooth® Adapter Ready (optional AS-BT200 required)
- › Firmware Update via Internet or USB
- › Graphic User Interface (GUI) with Album Artwork (HDMI only)
- › Auto Power Down for Each Zone
- › Power Save for HDMI Standby Through
- › AM/FM Tuner 63 Presets
- › Sleep Timer
- › Learning Remote Control (Luminous)

\*1 Except DSD files \*2 Up to 96 kHz streams \*3 Except multi-ch audio streaming  
 \*4 Service only available in the U.S.  
 \*5 For service availability in your country, check [www.spotify.com](http://www.spotify.com)  
 \*6 Separately sold Roku Streaming Stick™ required  
 \*7 Available for free download from the App Store™/the Google Play™ Store

# SC-82

ENERGY STAR Qualified 7.2-Channel ELITE AV Receiver Featuring Class D<sup>3</sup> (Direct Energy HD) Amplifier, Ultra HD (4K/60p) Upscaling/Pass-through, DSD Playback via Network, Subwoofer EQ, Dual Subwoofer Preout, Built-in AVNavigator, and Insulated Dual Chassis

## CONNECTIONS

REAR PANEL



SC-82/CUXJ

## CUSTOM CONTROL PARTNERS



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## FRONT TERMINALS

- > HDMI 1 In
- > USB 1 in for iPod/iPhone, USB Drive
- > MCACC Setup Mic In
- > Phones 1 Out

## REAR TERMINALS

- > HDMI 6 in (6 assignable, 1 for HDMI/MHL)
- > HDMI 2 out (1 for MAIN, 1 for MAIN/HDZONE)
- > Ethernet 1 In

- > AV (Composite) 2 In/1 Out
- > Audio 1 In (assignable)
- > Digital Coaxial 2 In (assignable)
- > Digital Optical 2 In (assignable)
- > Component Video 2 In (assignable)
- > Monitor Component 1 Out/Monitor Composite 1 Out
- > Preout 7.1 ch (9.2 ch terminals)
- > Speaker 9 ch Out (SB/FH/FW/B/Bi-Amp/ZONE 2/HDZONE assignable)
- > Bluetooth Adapter Port for AS-BT200
- > USB Charge Port for AS-WL300 Wireless LAN Converter
- > IR 2 In/1 Out
- > 12 V Trigger x 2/RS-232C

## ZONE FEATURES

- > HDZONE for Audio and Video
- > ZONE 2 Audio, Subwoofer, Volume, Balance and Tone
- > ZONE 3 Audio, Volume and Balance

## SPECIFICATIONS

- > Power Requirements: AC 120 V, 60 Hz
- > Power Consumption: 290 W/0.1 W (Standby)
- > Dimensions (W x H x D): 17-1/8 x 7-5/16 x 17-3/8 inches (435 x 185 x 441 mm)
- > Weight: 32 lbs. 2 oz. (14.6 kg)

## INTEGRATED TECHNOLOGIES



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## AMPLIFICATION

- › Channels: 7
- › Amplification Type: Class D<sup>3</sup> (Direct Energy HD)
- › 560 W Multi ch Simultaneous Drive (8 ohms, 1 kHz, THD 1.0 %)
- › 180 W/ch (4 ohms, 1 kHz, THD 1.0 %, 2 ch Driven)
- › 150 W/ch (6 ohms, 1 kHz, THD 1.0 %, 2 ch Driven FTC)
- › 120 W/ch (8 ohms, 1 kHz, THD 0.08 %, 2 ch Driven FTC)

## CONSTRUCTION DESIGN

- › Advanced Direct Construction
- › Rigid Trans-Stabilizer
- › Insulated Dual Chassis

## AUDIO FEATURES

- › Dolby® TrueHD/Dolby Pro Logic IIz/Dolby Digital Plus
- › DTS-HD Master Audio/DTS-ES/DTS Neo:X | 7.1
- › DSD Music File Playback via Network/USB (2.8 MHz)
- › DSD Disc (SACD) Playback via HDMI (2.8 MHz)
- › Digital Core Engine with Texas Instruments Aureus™ DSP
- › Hi-bit24 Audio Processing
- › SABRE™ Premier Audio DAC (ES9006S) for 7.2ch
- › HDMI® Audio Return Channel
- › Pioneer Advanced MCACC Room Calibration
  - Phase Control
  - Auto Phase Control Plus/Phase Control Plus
  - Standing Wave Control
  - 3D Time Axis Measurement
  - Polarity Check
  - Automatic Crossover Detection
  - Reverb Before and After Calibration Results (AVNavigator for iPad)
  - Subwoofer EQ (4 Band)
- › Pioneer Sound Enhancements
  - PQLS Bit-stream/Multi-Surround/2ch
  - Advanced Sound Retriever (Multi-ch)
  - Sound Retriever Link
  - Auto Sound Retriever/Auto Sound Retriever for ARC
  - Auto Level Control (Multi-ch)
  - Virtual Speakers (Wide/Height/Surround Back)
  - Virtual Depth
- › Advanced Surround Modes
  - Action, Drama, Advanced Game, Sports, Classical, Rock/Pop
  - Front Stage Surround, Extended Stereo
  - Sound Retriever Air, Phones Surround
  - ECO Mode 1, ECO Mode 2
- › Input Volume Absorber

## VIDEO FEATURES

- › HDMI 7 in/2 out (1 for MAIN, 1 for MAIN/HDZONE)
- › 3D Ready (Blu-ray Disc®, Broadcast, and Games)
- › Deep Color (36-bit), "x.v. Color"
- › Ultra HD Upscaling and Pass-through (4K/60p/4:4:4/24-bit, 4K/24p/4:4:4/36-bit, 4K/60p/4:2:2/36-bit)
- › Video Scaler with Qdeo™
- › Video Conversion to HDMI
- › Triple HD Noise Reduction
- › Advanced Video Adjust
- › Stream Smoother
- › Stream Smoother Link
- › Frame Rate Conversion

## HOME NETWORK FEATURES

- › Apple AirPlay Certified
- › DLNA Certified™ (1.5)
- › HTC Connect™ Certified
- › Windows® 8.1 Compatible
- › Music File Playback/Seek\*1 via Network/USB: AIFF, Apple Lossless, WAV, FLAC, MP3, WMA, AAC, DSD
  - 192 kHz/24-Bit Audio playback (AIFF, WAV, FLAC)
  - Multi-Channel (5.1ch, 5.0ch) Audio Playback\*2 (WAV, FLAC)
- › Gapless Playback for AIFF, Apple Lossless, WAV\*3, FLAC\*3, AAC, MP3
- › Pandora® Internet Radio\*4
- › Spotify® Digital Music-Streaming Service Ready\*5
- › Roku Ready®\*6
- › Internet Radio with vTuner

## CONVENIENCE FEATURES

- › ENERGY STAR Qualified
- › iPod Digital Transmission via Front USB Terminal
- › Android™ Audio/Video Playback with MHL™
- › Built-in AVNavigator (Wiring Navi, Interactive Operation Guide and Network Setup)
- › HDMI ZONE Out (HDZONE) and Analog Audio Out (ZONE 2)
- › Charges iPod/iPhone
- › iControlAV5 Remote Control App Ready (iOS/Android)\*7
- › Wireless LAN Converter Ready (optional AS-WL300 required)
- › Bluetooth® Adapter Ready (optional AS-BT200 required)
- › Firmware Update via Internet or USB
- › Graphic User Interface (GUI) with Album Artwork (HDMI only)
- › Auto Power Down for Each Zone
- › Power Save for HDMI Standby Through
- › AM/FM Tuner 63 Presets
- › Sleep Timer
- › Learning Remote Control (Luminous)

\*1 Except DSD files \*2 Up to 96 kHz streams \*3 Except multi-ch audio streaming  
 \*4 Service only available in the U.S.  
 \*5 For service availability in your country, check [www.spotify.com](http://www.spotify.com)  
 \*6 Separately sold Roku Streaming Stick™ required  
 \*7 Available for free download from the App Store™/the Google Play™ Store

# SC-81

ENERGY STAR Qualified 7.2-Channel ELITE AV Receiver Featuring Class D<sup>3</sup> (Direct Energy HD) Amplifier, Ultra HD (4K/60p) Upscaling/Pass-through, DSD Playback via Network, Subwoofer EQ, Dual Subwoofer Preout, Built-in AVNavigator, and Advanced Direct Construction

## CONNECTIONS

REAR PANEL



SC-81/CUXJ



## FRONT TERMINALS

- > HDMI 1 In
- > USB 1 in for iPod/iPhone, USB Drive
- > MCACC Setup Mic In
- > Phones 1 Out

## REAR TERMINALS

- > HDMI 6 in (6 assignable, 1 for HDMI/MHL)
- > HDMI 2 out (1 for MAIN, 1 for MAIN/HDZONE)
- > Ethernet 1 In

- > AV (Composite) 2 In/1 Out
- > Audio 1 In (assignable)
- > Digital Coaxial 2 In (assignable)
- > Digital Optical 2 In (assignable)
- > Component Video 2 In (assignable)
- > Monitor Component 1 Out/Monitor Composite 1 Out
- > Preout 2.1 ch (2.2 ch terminals)
- > Speaker 9 ch Out (SB/FH/FW/B/Bi-Amp/ZONE 2/HDZONE assignable)
- > Bluetooth Adapter Port for AS-BT200
- > USB Charge Port for AS-WL300 Wireless LAN Converter
- > IR 1 In/1 Out
- > 12 V Trigger x 2/RS-232C

## CUSTOM CONTROL PARTNERS



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## ZONE FEATURES

- > HDZONE for Audio and Video
- > ZONE 2 Audio, Volume, Balance and Tone

## SPECIFICATIONS

- > Power Requirements: AC 120 V, 60 Hz
- > Power Consumption: 290 W/0.1 W (Standby)
- > Dimensions (W x H x D): 17-1/8 x 7-5/16 x 15-9/16 inches (435 x 185 x 396 mm)
- > Weight: 31 lbs. 7 oz. (14.3 kg)

## INTEGRATED TECHNOLOGIES



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