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HTR9900 AVR9900



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PHILIPS

Italia

DICHIARAZIONE DI CONFORMITA'

Si dichiara che l'apparecchio HTR9900, AVR9900 Philips risponde alle prescrizioni dell'art. 2 comma 1 del D.M. 28 Agosto 1995 n. 548.

Fatto a Eindhoven

Philips Consumer Electronics Philips, Glaslaan 25616 JB Eindhoven, The Netherlands

Norge

Typeskilt finnes på apparatens underside.

Observer: Nettbryteren er sekundert innkoplet. Den innebygde netdelen er derfor ikke frakoplet nettet så lenge apparatet er tilsluttet nettkontakten.

For å redusere faren for brann eller elektrisk støt, skal apparatet ikke utsettes for regn eller fuktighet.

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1 Important

Safety and important notice



Warning!

- Risk of overheating! Never install the High Definition A/V Receiver in a confined space. Always leave a space of at least 4 inches around the High Definition A/V Receiver for ventilation. Ensure curtains or other objects never cover the ventilation slots on the High Definition A/V Receiver.
- Never place the High Definition A/V Receiver, remote control or batteries near naked flames or other heat sources, including direct sunlight.
- Only use this High Definition A/V Receiver indoors. Keep this High Definition A/V Receiver away from water, moisture and liquid-filled objects.
- Never place this High Definition A/V Receiver on or under other electrical equipment.
- Never stack the Blu-ray disc player with the High Definition A/V receiver to prevent overheat or product malfunction occurs.
- Keep away from this High Definition A/V Receiver during lightning storms.
- Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

(6

This product complies with the radio interference requirements of the European Community. This product complies with the requirements of the following directives and guidelines: 2004/108/EC, 2006/95/EC.

Recycle notice



Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.

When you see the crossed-out wheeled bin symbol attached to a product, it means the product is covered by the European Directive 2002/96/EC:



Never dispose of your product with other household waste. Please inform yourself about the local rules on the separate collection of electrical and electronic products. The correct disposal of your old product helps prevent potentially negative consequences for the environment and human health.



Your product contains batteries covered by the European Directive 2006/66/EC, which cannot be disposed of with normal household waste.

Please inform yourself about the local rules on the separate collection of batteries. The correct disposal of batteries helps prevent potentially negative consequences for the environment and human health.

Mains fuse (UK only)

This High Definition A/V Receiver is fitted with an approved moulded plug. Should it become necessary to replace the mains fuse, this must be replaced with a fuse of the same value as indicated on the plug (example 10A).

- 1 Remove fuse cover and fuse.
- 2 The replacement fuse must comply with BS 1362 and have the ASTA approval mark. If the fuse is lost, contact your dealer in order to verify the correct type.
- **3** Refit the fuse cover.

In order to maintain conformity to the EMC directive, the mains plug on this product must not be detached from the mains cord cable.

Trademark notice

Cts-нр Master Audio

Manufactured under license under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,487,535; 7,392,195; 7,272,567; 7,333,929; 7,212,872 & other U.S. and worldwide patents issued & pending. DTS is a registered trademark and the DTS logos, Symbol, DTS-HD and HTS-HD Master Audio are trademarks of DTS, Inc. © 1996-2008 DTS, Inc. All Rights Reserved.



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2 Your product

Product overview

Remote control



• Turns on the High Definition A/V Receiver or turns it off to standby mode.

②BLU-PLAYER 也

• Turns on or turns off Philips Blu-Ray player to standby mode.

3 SOURCE

• Press this button for direct access to different source inputs selections.

4 TUNER FM/AM

• Selects FM or AM band.

5 INFO

• Displays the source information.

(6) Philips Blu-Ray player control

- Starts playback.
- : Stops playback.
- II : Pauses playback temporarily.
- ✓ / ►► : Fast reverse/forward search.

7 TUNER PRESET +/-

 Press + or - to step up or down between stored radio tuner presets.

(mute) 🕷 🛞

- Switches off the sound temporarily.
- Press again to restore sound or press VOL +.

9 Numeric buttons

• Press to enter the number(s) for the radio preset.

- Toggle to select different tone control: activate or deactivate tone control, bass tone or treble tone.
- Turns on or off tone control circuits or selects bass or treble tone.

11 TEST TONE

 Press this button for the test tone of each speaker only when in "Speaker Levels" option under "Speaker Setup" menu.

12 SETUP / MENU

 Accesses or exits the Main menu options.

(13) OK

• Confirms an entry or selection.

(14) Cursor buttons (▲ ▼ ◀ ►)

- Selects an item in a menu.
- In radio mode, press ▲ ▼ to tune the radio frequency up/down or press ◀ ► to select a preset number.

(15) BACK

• Returns to the previous display menu.

16 VOL +/-

• Adjusts the volume level.

(17) SURROUND.

• Toggle to select desired listening or surround mode.

18 Tuner control

- MEMORY/PROGRAM: Saves current station into preset memory. Press and hold to start auto search.
- CLEAR: Deletes radio preset.
- FM MODE : Switches between FM stereo and FM mono.

SOURCE input table

Source	Audio Input	Video Input	Video Output
Source 1 (BLU- PLAYER)	Blu-ray IN/ Audio 1 IN	Blu-ray 1 IN	HDMI Monitor OUT
Source 2 (TV)	Coaxial TV/ Audio 2 IN	Component Video 2 IN	Component Video OUT
Source 3	HDMI 2 IN /Audio 3 IN	HDMI 2 IN	HDMI Monitor OUT
Source 4	Optical 1 IN /Audio 4 IN	S-Video 4 IN	S-Video Monitor OUT
Source 5	Optical 2 IN / Audio 5 IN	S-Video 3 IN	Video Monitor OUT
Source 6	Coaxial AUX / Audio 6 IN	Video 4 (composite)	Video Monitor OUT
Source 7 (Multi)	7.1 Input	Component Video 3 IN	Component Video OUT
Source 8 (Front)	Optical Front Input/ Audio Front Input	S-Video Front IN	S-Video Monitor OUT

Your product

Front panel



10

• Turns on the High Definition A/V Receiver or turn off to standby mode.

2 SETUP / MENU

• Accesses or exits the Main menu options.

3 SURROUND

 Toggle to select through the various listening mode options. Depending on the format of the currently selected input (digital or analogue, stereo or multichannel).

4 BACK/EXIT

• Returns to previous screen or exits the Settings menu.

5 SOURCE

• Toggle through the input selections. See "SOURCE input table" for more information.

6 Display Panel

• Provides visual information on all important modes and settings of the High Definition A/V Receiver.

7 Remote control sensor

• Point the remote control at the remote control sensor.

(8) Cursor buttons (▲ ▼ ◀ ►)

- Selects an item in a menu.
- In radio mode, press ▲ ▼ to tune the radio frequency up/down or press ◀ ► to select a preset number.

ОК

• Confirms an entry or selection.

9 VOLUME

• Adjusts the volume level of the main speakers.

10 HEADPHONES / SETUP MIC socket

 Use this socket to connect a standard headphone and/or a supplied microphone used for speaker auto calibration. See 'Setup' > 'Speaker setup (Smart EQ)'.

(11) AV socket (AUDIO L/R, VIDEO IN, S-VIDEO, OPTICAL)

 Use these convenience sockets for occasional sources such as a camcorder, video game console, any analogue audio or optical digital audio and composite video or S-video sources. Rear panel



1 COAXIAL IN-TV / IN-AUX OPTICAL IN-1 / IN-2

 Connect to the corresponding optical or coaxial S/PDIF-format digital output of sources such as CD or DVD players, HDTV or satellite tuners and other devices.



• For Philips TV, connect it to the COAXIAL IN-TV.

COAXIAL OUT OPTICAL OUT

 Connect to the corresponding S/PDIF digital (coaxial/optical) input of a compatible device such as CD recorders, receivers, computer soundcard or other digital processors.

2 MONITOR OUT (S-VIDEO, VIDEO)

 Connect to video input of the monitor/ television using quality dual-composite and/or S-Video cables designed for video signals. S-Video produces sharper images than composite video, and should be used if your TV/monitor provides the corresponding input.

3 HDMI 1 (Blu-ray) -2-3-4 IN

 Connect HDMI inputs to the HDMI OUT connectors of source devices such as DVD player / HDTV satellite / cable box / Blu Ray Disc player / gaming device.

- Note

• For Philips Bllu-Ray Disc player, connect it to the HDMI 1 IN.

(4) HDMI MONITOR OUT

 Connect the HDMI OUT to a HDTV or projector with HDMI input. HDMI connection provides the best video quality.

5 COMPONENT VIDEO IN 1-2-3, COMPONENT MONITOR OUT

- Connect the Component video inputs to Component Video outputs from compatible source devices, typically a DVD player and terrestrial or satellite HDTV tuner.
- Connect the Component video output to the Component Video input of a compatible video monitor/TV. Be sure to observe consistency in connecting the Y/Pb/Pr sockets to the corresponding sources/inputs. The routing of the component video inputs is fully configurable via the Settings menu.
- The High Definition A/V Receiver's component video inputs and outputs are fully wideband and compatible with allowable HDTV formats.

6 MULTI INPUT

 Connect to the corresponding analogue audio output ports of multichannel source devices such as a DVD-Audio or multichannel-SACD player or external multichannel decoder (disc copy protected formats only allow analogue signal transfer). Typically, these sources will produce 5.1-channel output, in which case the Surround Back sockets are left unconnected. There is no bass-management or other processing (other than master volume control) available to this 7.1 Channel Input. While the multichannel audio outputs of a DVD-Video player can be connected to these sockets, using the High Definition A/V Receiver's own Dolby Digital and DTS decoding and digital-analogue converters via a digital connection will usually produce superior results.

7 ANTENNA FM, AM

- Connect the supplied lead-type FM antenna to the FM antenna input. Extend the lead. Experiment freely with your antenna placement and orientation until you get the clearest sound and lowest background noise. Fix the antenna in the desired position by using thumb tacks, push pins or any suitable means.
- The AM loop antenna supplied with the High Definition A/V Receiver (or a suitable replacement) is required for AM reception. Open the clip terminal lever, insert the wire making sure to match the colour-coded (white and black) ends of the wire to that of the terminal and close the lever ensuring that the lever locks the wire in place. Testing different positions for the antenna may improve reception, vertical orientation will usually produce the best results. Antenna proximity to large metal objects (appliances, radiators) may impair reception, as will attempts to lengthen the wire to the loop.

English

8 PRE-OUT

- Connect the SW output to powered subwoofer.
- The PRE-OUT makes it possible to use the High Definition A/V Receiver as a pre-amplifier to external power amplifiers for some or all channels. Connect FRONT L, FRONT R, CENTER, SURR R, SURR L, SURR-BL, SURR-BR and SUBW to the respective channel input of a power amplifier or an amplifier driving the applicable speakers. Unlike the full range channels, there is no power amplifier built-into the High Definition A/V Receiver for a subwoofer.

(9) UPLOAD (MCU, HDMI), RESET

 The MCU, HDMI and RESET switches are meant for product service purposes. In the unlikely event that your High Definition A/V Receiver hangs up, you can press RESET to restore your High Definition A/V Receiver to normal adjust settings.

(10) IR IN

- These mini-sockets accept and output remote-controlled codes in electrical format, using industry-standard protocols, for use with "IR-repeater" and multi-room systems and related technologies.
- This input is connected to the output of an IR (infrared) repeater (Xantech or similar) or the IR output of another device to allow control of the High Definition A/V Receiver from a remote location.

IR OUT 1-2

- Both IR OUT 1 and IR OUT 2 have dual-features - they can act as an infrared command repeater or stand alone as IR OUT. Connect the High Definition A/V Receiver's IR IN to the IR OUT of ancillary device. Connect also the High Definition A/V Receiver's IR OUT 1 (or IR OUT 2) to another device with IR IN feature. With this setup, the High Definition A/V Receiver acts as an "IR-repeater" allowing the device connected to the High Definition A/V Receiver's IR IN control or command of the other device linked to the High Definition A/V Receiver's IR OUT 1 (or IR OUT 2).
- As a stand alone IR OUT, connect IR OUT 1 (or IR OUT 2) to the IR IN of an ancillary device. Direct the ancillary device's own remote control to the High Definition A/V Receiver's infrared receiver to command or control the linked unit.

1)+12V TRIGGER OUT

 The +12V TRIGGER OUT is used for controlling external device that is equipped with a +12V trigger input. This output will be 12V when the High Definition A/V Receiver is ON and 0V when the unit is either OFF or in standby. This output can drive a load up to 150mA at 12V. (see ' Adjust settings' > 'Settings menu' > [Trigger setup])

12 VIDEO-AUDIO IN 1, VIDEO-AUDIO OUT 1

- Connect VIDEO-AUDIO IN 1 to the analogue audio/video output port of a recording device such as a video cassette recorder, DVD recorder or to an outboard audio/video processor.
- Connect VIDEO-AUDIO OUT 1 to the recording device's corresponding analogue audio/video input port.
- The signal present at VIDEO-AUDIO OUT 1 port is dependent upon the current active SOURCE. There will be no output when VIDEO 1/AUDIO 1 is the selected source input. This prevents feedback through the recording device thereby preventing possible damage to your speakers.

13 VIDEO-AUDIO 2-3-4

These

comprise the High Definition A/V Receiver other principal inputs. Connect these S-Video, composite video, and analogue stereo audio input ports to the corresponding output ports of source devices.

14 AUDIO 5-6 IN, AUDIO 5 OUT

- Input for additional line level input signals such as CD player, MP player or a tape recorder. Connect AUDIO 5 OUT to the analogue audio input of a recording device such as a docking system, DVD recorder or to an outboard audio/video processor.
- Connect the AUDIO 5 IN socket to the device's corresponding output. AUDIO 6 IN is advisable to connect to a dedicated analogue output of line-level audio sources like a CD player or Stereo tuner.

(15) RS-232C

• The RS-232C is meant for product service purposes.

16 SPEAKER CONNECTORS

 Connect the respective speaker's FRONT L, FRONT R, CENTER, SURROUND R, SURROUND L, SURROUND BACK L and SURROUND BACK R channels to their corresponding loudspeakers. Make sure the "+" (red) terminal and "-" (black) terminal are connected to the corresponding "+" and "-" terminals of the loudspeaker. Use extra care to ensure that no stray wires or strands cross between posts or terminals at either end. The High Definition A/V Receiver is designed to produce optimum sound quality when connected to speakers with impedances within its operating range. Please make sure that all the speakers are rated 8 ohms minimum per speaker.

17 SWITCHED AC OUTLET

 This convenience outlet can supply switched power to another device or accessory. It is powered ON and OFF by the front panel b button or the **RECEIVER** b button on the remote control. The total draw of all devices connected to this outlet must not exceed 100 watts.

(18) AC INPUT

• The High Definition A/V Receiver comes supplied with a separate AC Mains cable. Before connecting the cable to a live wall socket, ensure that it is firmly connected to the High Definition A/V Receiver's AC Mains input socket first. Connect only to the prescribed AC Outlet, i.e. 230V 50 Hz. Always disconnect the AC Mains cable plug from the live wall socket first, before disconnecting the cable from the High Definition A/V Receiver's Mains input socket.

3 Connect

Make the following connections to use your High Definition A/V Receiver.

Connect this High Definition A/V Receiver:

- Speakers and subwoofer (only included for HTR9900)
- Radio antenna
- Power

Connect other devices:

 Different types of connectors may be used to connect this product to your TV and other audio/video devices (for example, cable box, recorder, blu-ray disc player) depending on availability and your needs.

Note

- Refer to the type plate at the back or bottom of the product for identification and supply ratings.
- Before you make or change any connections, ensure that all the devices are disconnected from the power outlet.

Place the High Definition A/V Receiver

- Place the High Definition A/V Receiver where it cannot be pushed, pulled over or knocked down. Do not place it in an enclosed cabinet.
- Be sure that you have full access to the power cord for easy disconnection from the power supply.



- 1 Place this High Definition A/V Receiver near the TV.
 - Do not place any other devices on top or below the High Definition A/V Receiver, or leave a space of about 5 cm. Allow adequate ventilation space around.
- 2 Place the speakers system at normal listening ear-level and directly parallel to the listening area.
- **3** Place the subwoofer at the corner of the room or at least 1 metre away from the TV.

⊁ Тір

 To avoid magnetic interference or unwanted noise, never place this High Definition A/V Receiver too close to any radiation devices.

English

Connect speakers and subwoofer



- Speakers and subwoofer are supplied with HTR9900 only
- Connect the speakers and subwoofer to the matching sockets on this High Definition A/V Receiver.

Connect radio antennas



Assemble the loop antenna



- 1 Rotate the outer frame of the antenna.
- 2 Insert the bottom edge of the outer frame into the groove on the stand.
- 3 Extend the AM loop antenna cord and connect to the AM socket on this High Definition A/V Receiver.
 - Place the AM loop antenna on a shelf or attach it to a stand or wall.
- - Extend the FM antenna and fix its ends to the wall.

Connect power cord



Warning!

- Risk of product damage! Ensure that the power supply voltage corresponds to the voltage printed on the back of the underside of this unit.
- 1 Connect the power cord to the power outlet when all the required connections are done.
 - → This High Definition A/V Receiver is now ready to be set up for use.

4 Setup

Subwoofer setup

(For HTR9900 only)

Fine-tune the subwoofer setting based on your listening preferences.

- 1 Turn the subwoofer on with the **POWER** switch,
- 2 Play music with bass content.
- 3 Tum the OUTPUT LEVEL switch clockwise until you begin to hear the source. Adjust the volume output to a comfortable listening level.
- 4 Switch the PHASE switch to '-180°'. This will let you determine if the bass sounds louder in your seating position. The more bass-heavy setting is where the output of the subwoofer and the main speakers are most in phase. Use whatever position is louder at your seating location. However, if you do not notice any difference when changing the setting, it only means there are no issues in your room and all is fine.
- 5 With the overall level at a reasonable volume, walk around the room. Listen for the balance between the subwoofer and the speakers. If there is too much low frequency sound, turn the FREQUENCY switch counter-clockwise towards "80 Hz" If more bass is needed, turn the FREQUENCY switch towards "160 Hz". Adjust for a good even balance.

Note

For HTR9900, the default frequency is 80 Hz.



1 POWER switch

 Use this switch to turn off the subwoofer. The subwoofer is turned on when the power switch is switched to ON position. It is not automatically turned on when powered up. Ensure that the switch is at the correct position

2 LINE INPUT socket

• Connect to the subwoofer input socket on the receiver.

3 PHASE switch

• This switch changes the polarity of the input to the subwoofer. Adjust this switch for most Bass.

4 FREQUENCY switch

• This switch changes the crossover point for the subwoofer and speakers.

5 OUTPUT LEVEL switch

• This switch adjusts the amount of subwoofer level in the acoustic mix. Turn the knob clockwise for more bass, counter-clockwise for less Bass. The SmartEQ feature uses a microphone, along with sophisticated digital electronics built into your High Definition A/V Receiver, to automatically setup and calibrate the High Definition A/V Receiver to the exact speakers and speaker placement of your own unique Home Theatre.

Setup is normally done once. In case the speakers are moved or changed, calibration should be performed again.

- 1 Turn on the High Definition A/V Receiver.
 - Place the speakers at the correct location. If the subwoofer is connected, ensure proper volume adjustment.
- 2 Turn on your TV to the correct viewing channel for this High Definition A/V Receiver.
- 3 Connect the supplied microphone to the HEADPHONES / SETUP MIC socket.



- 4 Position the microphone in the main listening position at ear height.
 - Make sure there are no obstacles between the speakers and the microphone.

SmartEQ

Please Connect the measurement microphone to the 9900

Position the microphone in the main listening position at ear height.

1.1	
5.1	

- **5** Select either 7.1 or 5.1 setup, depending on the availability of speakers.
 - → Auto calibration starts. The following parametres are automatically measured and adjusted accordingly.
 - [Checking Noise Level] Checks noise level relative to each speaker and subwoofer.
 - [Checking Number of Speakers]

 Speaker configuration is detected including number of surround speakers and whether a subwoofer and centre channel is connected.
 - [Speaker Distance] Sets the appropriate distance of each speaker position accurately as well as the subwoofer with respect to the microphone position.
 - [Checking Speaker Level and Size] High Definition A/V Receiver crossover is set based on each channel's signal handling capability and the subwoofer crossover is automatically set. SPL (Sound Pressure Level) of each speaker is matched with respect to the microphone position.

A special test tone is sent to each speaker and the data is stored by the High Definition A/V Receiver. The duration of setup may take some time depending on the number of speakers. Setup

After the measurements, the High Definition A/V Receiver calculates the ideal system response for your particular room and speaker setup. If some inconsistencies or discrepancies are detected during the setup, the process maybe interrupted or the problem is shown in the particular setup window. A notice screen is correspondingly displayed. After following and undertaking the displayed instructions, re-start the Auto Calibration setup again. When the measurements are finalised, the High Definition A/V Receiver calculates the ideal system response for your particular room and speaker setup.

Note

 The test tone emitted during measurement is loud. This maybe bothersome for you and may affect as well your other household members and even your neighbour.

Navigate through the menu

To navigate through the on-screen menu options, please do the following using the remote control or corresponding front panel buttons:

- Press ► to select a menu item. Use ▲▼ buttons to move up or down the Menu selections. Repeatedly press ► to advance or go further into the sub-menu of a desired menu item.
- 2 When you are at a menu item and you want to set or change the parametre value (setting), press ▶ again until "^v" is displayed on the extreme right of the menu item. Use ▲▼ buttons to move up or down the menu options.
- **3** Press **OK** to save the settings or changes done on the current menu or sub-menu.
- 4 Press **BACK/EXIT** to exit from a particular menu and return to the previous menu.

Setting up listening modes

Press **SETUP** / **MENU** button of the remote control or front panel to display the High Definition A/V Receiver's Main menu on your video monitor/TV. If the on-screen menu does not appear, check your **MONITOR OUT** or **HDMI OUT** connections.

The Main Menu contains the menu options:

- [Listening mode]
- [Audio synchs]
- [Tone controls]
- [Settings menu]

Listening mode	Source setup
Audio synchs	Speaker setup
Tone controls	Trigger setup
Settings menu	Listening Mode setup
	Video setup
	Language setup

 On the Main Menu, use ▲▼ buttons to navigate through the menu and select [Settings menu], then press ►.

Settings menu	
Source setup	Listening Mode
Speaker setup	Dolby Setup
Trigger setup	DTS Setup
Listening Mode setup	
Video setup	
Language setup	

2 On the [Settings menu], use ▲▼ buttons to navigate through the menu and select [Listening Mode setup], then press ▶.

English

Listening mode setup

The High Definition A/V Receiver has various listening mode options and is mostly configurable. These are provided to reproduce a variety of sound effects depending upon the content of the source to be played. Use a combination of \blacktriangleright and $\blacktriangle V$ buttons to configure the following settings.

The Listening Mode setup menu contains the following options:

- [Listening Mode]
- [Dolby Setup]
- [DTS Setup]

[Listening Mode]

The audio format as detected by the selected Source can be automatically configured and processed through the following options:

- [Dolby Digital]
- [DTS]
- [Other]

Listening Mode Dolby Digital 2 Channel : PLIIx Music Surround : PLIIx Movie DTS : Noe:6 Music Other : Digital : None Analog Audio : None

• [Dolby Digital]

Dolby Digital is the multi-channel digital signal format developed in the Dolby laboratories. Discs bearing the double-D symbol were recorded with up to 5.1 channels of digital signals, reproducing a much better sound quality, with dynamic and spatial sound sensations that are much better than in the previous Dolby Surround. A Dolby Digital audio input can be configured relative to its format.

- [2 Channel] If the detected audio is a 2 Channel Dolby Digital signal, you can default it to one of the following settings – [PLIIx Movie], [PLIIx Music] or [None].
- [Surround] If the detected audio is a Surround Dolby Digital signal, you can default it to one of the following settings – [Dolby Digital EX], [PLIIx Movie], [PLIIx Music], [Stereo Downmix] or [None].

Note

 If [None] is selected, the DTS signal will follow the [Digital] setting set forth at [Other] option under this menu section. See explanation on [Other] on the following page.

• [DTS]

The Digital Theatre System Digital Surround (simply called DTS) is a multichannel digital signal format that can process higher data rates than with Dolby Digital. Although both Dolby Digital and DTS are 5.1 channel media formats, discs bearing the "DTS" symbol are thought to provide better sound quality due to the lower audio compression required. It also offers a broader dynamic, producing magnificent sound quality.

A DTS input can be defaulted to one of the following options: [DTS+NEO:6 Music], [Neo:6 Cinema], [Neo:6 Music], [Stereo Downmix] or [None].

• [Other]

If **[None]** is selected above for any of the Dolby Digital 2 Channel, Dolby Digital Surround and DTS options or if the audio input is an analogue signal, this **[Other]** section will manage the default audio format as per the **[Digital]** or **[Analog Audio]** settings.

- [Digital] The detected digital input can be configured by way of one of the following options – [7 ch Stereo], [Neo:6 Music], [Neo:6 Cinema], [PLIIx Music], [PLIIx Movie] or [None].
- [Analog Audio] If the audio input is an analog signal, the following are the surround modes the input can be defaulted. – [7 ch Stereo], [Neo:6 Music], [Neo:6 Cinema], [PLIIx Music], [PLIIx Movie] or [None].

- Note

- All these Listening Modes for [Dolby Digital], [DTS] and [Other] can be directly changed by pressing the SURROUND button on the front panel or through the [Listening Mode] option at the [Main Menu] window.
- The chosen audio format will be reflected back to the appropriate setting at the [Listening mode setup].

[Dolby Setup]

Under this menu, the Dolby Digital's Dynamic Range Control can be adjusted as well as the settings for Dolby Digital Pro Logic IIx Music.

Dolby Setup	
Dolby Digital Dyn Range Ctrl	: 100%
Dolby Pro Logic I	Ix Music
Dimensions	: 0
Center Width	: 3
Panorama	: Off

- [Dyn Range Ctrl] (Dynamic Range Control): You can select the effective dynamic range (subjective range from soft to loud) for playback of Dolby Digital soundtracks. For fully cinematic effect, always select 100%, the default. Settings of 75%, 50%, and 25% progressively reduce dynamic range, making soft sounds comparatively louder while limiting the peak loudness of loud ones. The 25% setting will yield the least dynamic range and is best for late night sessions or other times when you wish to retain maximum dialogue intelligibility while minimizing overall volume levels.
- **[Dolby Pro Logic IIx Music]** Please refer to 'Adjust settings'> 'Listening mode setup' > 'Listening mode' > 'PLIIx Music' for more information.

English

[DTS Setup]

Under this menu, the Centre Gain settings of DTS Neo:6 Music can be adjusted.

DTS Setup	
DTS	: Neo:6 Music
Center Gain	: 0.2

 [Center gain (0 to 0.5)] – Adjust for better centre image in relation to the surround sound channels.

Additional Information

Dolby Digital Surround Modes

The following are further descriptions about the Dolby Digital surround modes.

• [Dolby Digital Plus] – Dolby Digital Plus is the next-generation audio technology for all high-definition programming and media. It combines the efficiency to meet future broadcast demands with the power and flexibility to realise the full audio potential expected in the upcoming high-definition era. Built on Dolby Digital, the multi-channel audio standard for DVD and HD broadcasts worldwide, Dolby Digital Plus was designed for the next-generation A/V receivers but remains fully compatible with all current A/V receivers.

Dolby Digital Plus delivers multi-channel audio programs of up to 7.1 channels and supports multiple programmes in a single encoded bitstream with the maximum bit rate potential of up to 6 Mbps and the maximum bit rate performance of up to 3 Mbps on HD DVD and 1.7 Mbps on Blu-ray Disc. It outputs Dolby Digital bitstreams for playback on existing Dolby Digital systems. Dolby Digital Plus can accurately reproduce the sound originally intended by directors and producers.

It also features multi-channel sound with discrete channel output, interactive mixing and streaming capability in advanced systems. Supported by High-Definition Media Interface (HDMI), a single-cable digital connection is possible for highdefinition audio and video.

- [Dolby TrueHD] Dolby TrueHD is a lossless encoding technology developed for high-definition optical discs in the upcoming era. Dolby TrueHD delivers tantalising sound that is bit-for-bit identical to the studio master, unlocking the true high-definition entertainment experience on high-definition optical discs in the next generation. When coupled with high-definition video, Dolby TrueHD offers an unprecedented home theatre experience with stunning sound and high-definition picture. It supports bit rates of up to 18 Mbps and records up to 8 full-range channels individually with 24-bit/96 kHz audio. It also features extensive metadata including dialogue normalisation and dynamic range control. Supported by High-Definition Media Interface (HDMI), a single-cable digital connection is possible for high-definition audio and video. HD DVD and Blu-ray Disc standards currently limit their maximum number of audio channels to eight, whereas Dolby Digital Plus and Dolby TrueHD support more than eight audio channels. Note that the High Definition A/V Receiver only supports 7.1 channel.
- [Dolby Digital EX] Using a Matrix decoder, this method creates the back channel (sometimes also called the "surround centre") by means of signals on the left and right surround channels recorded in Dolby Digital 5.1, reproduction being provided in Surround 6.1. This method should be selected with sources bearing the (double-D symbol)-EX,

recorded in Dolby Digital Surround EX. With this additional channel you will experience improved dynamics and a better sensation of movement within the sound field. If media sources recorded in Dolby Digital EX are decoded with a Digital EX decoder, the format is detected automatically, and the Dolby Digital EX mode is selected. However, some media sources recorded in Dolby Digital EX can be detected as simple Dolby Digital media sources. In this case Dolby Digital EX should be selected manually.

DTS Digital Surround Modes

The following are further descriptions about the DTS surround modes.

- [DTS-HD Master Audio] DTS-HD Master Audio is a technology that delivers master audio sources recorded in a professional studio to listeners without any loss of data, preserving audio quality. DTS-HD Master Audio adopts variable data transfer rates, facilitating data transfer to the maximum rate of 24.5 Mbps in the Blu-ray disc format, 18.0 Mbps in the HD-DVD format, which by far exceeds that of a standard DVD. These high data transfer rates enable lossless transmission of 96 kHz/24-bit 7.1-channel audio sources without deteriorating the quality of the original sound, DTS-HD Master Audio is an irreplaceable technology that can reproduce sound faithfully as intended by the creator of music or movies.
- [DTS-ES™ (Expanded Surround)] This is a new multi-channel digital format which greatly improves the 360° spatial sensation of the Surround impression thanks to the greater space expansion of the surround signals, providing high compatibility with the conventional DTS format. In addition to the 5.1 channels, the expanded DTS-ES Surround also offers the back surround (also sometimes called the

"surround centre") in reproduction, providing a total of 6.1 channels. The expanded DTS-ES Surround includes two formats, with two different methods of surround signal recording, as follows:

• [DTS-ES™ Discrete 6.1] – Since the signals of the 6.1 Surround channels (including the back channel) are completely independent, it is possible to achieve the sensation that the acoustic image is moving about freely among the background sounds, 360 degrees surrounding the listener.

Although maximum quality is achieved with sound tracks recorded using this system and reproduced using the DTS-ES decoder, the back surround channel is automatically downmixed in the surround right and surround left channels of the surround system, in such a way that none of the signal components are lost.

• [DTS-ES[™] Matrix 6.1] – In this format, the additional signals of the back channel receive a matrix encoding and are inputted into the right and left surround channels. During reproduction they are decoded to the right, left and back surround channels. Since this bit-stream format is 100% compatible with conventional DTS signals, the DTS-ES Matrix 6.1 format effect can also be achieved from sources with DTS-ES 5.1 signals.

Naturally, it is also possible to reproduce from a DTS 5.1 channel decoder, signals recorded in DTS-ES 6.1. When a DTS-ES decoder processes a discrete DTS-ES 6.1 or in Matrix 6.1, these formats are automatically detected and the Optimum Surround mode is selected. However, some DTS-ES Matrix 6.1 sources may be detected as DTS. In this case the DTS-ES Matrix mode should be selected manually in order to reproduce them.

- [DTS+Neo:6[™] Surround] This mode applies the conventional 2-channel signals such as digital PCM or analogue stereo signals to the high precision digital matrix decoder used for DTS-ES Matrix 6.1 to achieve 6.1-channel surround playback. DTS Neo:6 surround includes two modes for selecting the optimum decoding of the signal sources:
 - 1. [Neo:6 Cinema] This method is ideal for the reproduction of movies. The decoding takes place by emphasising the separation in order to achieve the same atmosphere with 2-channel, as with 6.1- channel sources.
 - 2. [Neo:6 Music] Mainly recommended for music reproduction. The right and left front channels do not pass through the decoder and are reproduced directly so there is no loss in sound quality, and the effects of the right surround, left surround, central and back surround channels add a natural sensation of expansion of the sound field.

5 Enjoy

Select a play source

Route the audio from other devices to this High Definition A/V Receiver to enjoy the audio play with multi-channel surround capabilities. You can choose to connect to analogue or digital input socket depending on the device capabilities.

1 Press the respective SOURCE button on the remote control to select the input signal corresponds with the connected device. Double press to select the bottom row.



or

1 Press SOURCE on the front panel repeatedly to cycle through the input selection.



SOURCE input table

Source	Audio Input	Video Input	Video Output
Source 1 (BLU- PLAYER)	Blu-ray IN/ Audio 1 IN	Blu-ray IN	HDMI Monitor OUT
Source 2 (TV)	Coaxial TV/ Audio 2 IN	Component Video 2 IN	Component Video OUT
Source 3	HDMI 2 IN /Audio 3 IN	HDMI 2 IN	HDMI Monitor OUT
Source 4	Optical 1 IN /Audio 4 IN	S-Video 4 IN	S-Video Monitor OUT
Source 5	Optical 2 IN / Audio 5 IN	S-Video 3 IN	Video Monitor OUT
Source 6	Coaxial AUX / Audio 6 IN	Video 4 (composite)	Video Monitor OUT
Source 7 (Multi)	7.1 Input	Component Video 3 IN	Component Video OUT
Source 8 (Front)	Optical Front Input/ Audio Front Input	S-Video Front IN	S-Video Monitor OUT



- Tip
- · To modify the above default settings and for a better understanding of source setting and combinations (see 'Adjust settings' > 'Settings menu' > 'Source setup').
- Audio Input settings show both digital and analogue audio input. Digital input will always take precedence over analogue audio input even if both are present.

English

Listen to radio

The High Definition A/V Receiver's internal AM/FM tuner offers very high quality sound from radio broadcasts.

The reception and sound quality will always be dependent to a degree however on the type of antenna(s) used as well as proximity to the broadcast origin, geography and weather conditions.

Select the radio

1 Press TUNER AM/FM button repeatedly to select AM, FM radio mode.

Tune to a radio station

- 1 Press ▲▼ repeatedly to step up or down between frequencies.
- 2 Press and hold ▲▼ for more than 2 seconds to search up or down.
 - → The High Definition A/V Receiver's tuner stops at the next sufficiently strong signal it encounters.
 - Pressing the ▲▼ during the search process will stop the search.

Store a radio preset

The High Definition A/V Receiver can store up to 50 FM or AM stations for immediate recall.

- 1 To store a radio preset, first tune the desired frequency (see above), then press MEMORY/PROGRAM button.
- 2 Press ◀ ► to select a preset number to be assigned.

3 Then, press the **MEMORY/PROGRAM** button once again to save the station.

- 4 Press ◀ ► to step up or down between presets.
 - Press and hold ◄ ► to "scroll" continuously up or down. The remote control's TUNER PRESET +/buttons work similarly.

Choose the tuner mode

- 1 Press FM MODE repeatedly to switch between FM Stereo mode and FM Mono.
 - In the normal position, "FM STEREO ON", only the stations with a strong signal can be listened to, and the noise between stations is muted.
 - In ("FM STEREO OFF"), distant and potentially noisy stations to be received. Noise is reduced if the FM station signal level is less than the FM Stereo threshold (since mono FM is inherently less noise-prone) though at the sacrifice of the stereo effect.



 One can store the same channel in two preset locations - one with "FM STEREO ON" and another with "FM STEREO OFF".

Name a radio preset

You can assign an eight character 'User Name' to each radio preset, which will show in the front-panel readout whenever that preset is recalled.

- 1 Recall the desired radio preset.
- 2 Then, press and hold INFO until the display shows a flashing cursor point.
- 3 Use the front panel ▲▼ buttons to select the first character of the name ('N' from the alphabetical list).
- Press front panel ► button to select the character and correspondingly move forward to the next position.
 (Press < to go back to the previous character). Repeat this process for each character in sequence.
- 5 Press the MEMORY/PROGRAM button again to store the name and exit the text entry mode.

View Radio Data System (RDS)

The Radio Data System (RDS) permits sending small amounts of digital information using conventional FM radio broadcasts. The High Definition A/V Receiver supports two RDS modes, station-name (PS mode) and radio-text (RT mode). Not every FM station incorporates RDS in its broadcast signal. In most areas you will find from one to several RDS-enabled stations, but it is by no means impossible that your favorite stations will not be broadcasting RDS data.

View RDS texts

When an RDS-enabled FM broadcast is tuned, after a brief delay the 'RDS' symbol will illuminate in the High Definition A/V Receiver's front-panel readout and the readout's character section will show its station-name (PS) text: 'ROCK101', for example.

Press the **INFO** button on the remote control to toggle the readout between this and the station's radio-text (RT) readout, if any, which might scroll song- or artist name, or any other text of the station's choosing.

6 Adjust settings

Settings menu

The Settings menu allows one to customise the High Definition A/V Receiver to the ancillary device used in one's specific AV system. Unless your system exactly matches the factory defaults, you will need to use the Settings menu to configure the inputs of the High Definition A/V Receiver.

At Settings menu, the following are configurable:

- [Source setup]
- [Speaker setup]
- [Trigger setup]
- [Listening Mode setup]
- [Video setup]
- [Language setup]

Settings menu
Source setup
Speaker setup
Trigger setup
Listening Mode setup
Video setup
Language setup

Source setup

English

Settings menu

Source setup	Source setup
Speaker setup	
Trigger setup	
Listening Mode setup	
Video setup	
Language setup	

From Settings menu, pressing \blacktriangleright will direct you to the Source setup menu wherein you could adjust allocate or change the settings of the following

[Source Setup (Normal View)]

The Source Setup (Normal View) makes it possible to set, allocate or change the following settings.

Source setup	Source setup (Normal View)	
Source	: 3	
Name Analog Audio	: Source 3	
Gain	: 0dB	
Digital Audio	: HDMI 2	
Video	: HDMI 2	
Trigger Out	: Yes	

• [Source]

The High Definition A/V Receiver is equipped with ten configurable Sources (Source 1 - 8). The settings for each Source are dependent on the configurations set forth in the parametres for that particular Source window. Use ▼▲ buttons to toggle through the Sources.

• [Name]

A new Name maybe assigned to a Source label. For example, if your DVD player is attached to "Source 3", it is possible to rename "Source 3" to 'DVD Player'.

- In order to rename the Source label, scroll to "Name", press ▶ and then ▲▼ to pick and select through the alphanumeric selections.
- Press ◄ ► to move to the next character and at the same time save the changes done on the current character. The name can be as long as eight characters.
- The new Name will be shown in the display panel as well as on the on-screen display.

• [Analog Audio]

The High Definition A/V Receiver has 8 analogue audio inputs including Multi Input. These analogue inputs can be variably assigned to each Source:

[Audio 1/2/3/4/5/6/7.1 Input/Audio Front]

Scroll to **[Analog Audio]** and then press ► to select and assign an analogue audio input to the particular Source. If **[Off]** is selected, no incoming analogue audio signal is selected by the particular Source.

Note

 Priority is given to an incoming digital signal present at the assigned digital input over the assigned analogue audio input, even if both are present. To maintain the analogue audio input for the particular Source, select [Off] at the [Digital Audio] setting of the same [Source] menu.

• [Gain]

Gain adjustment allows all sources to play back at the same volume so you don't need to adjust the volume every time a new source is selected. It is generally preferable to reduce the level of the loudest source rather than making louder the softer sources.

Scroll to **[Gain]**, press \blacktriangleright and then $\blacktriangle \forall$ to step through the desired level from -12dB to 12dB.

• [Digital Audio]

To take advantage of the High Definition AVV Receiver's high performance surround and digital audio circuitry, it is advisable that its Digital Audio inputs are selected.

There are ten Digital Audio inputs selectable for the High Definition A/V Receiver. They are the following: [HDMI Blu-ray Player/2/3/4] > [Optical 1/2] > [Optical Front] > [Coaxial TV] > [Coaxial AUX].

If **[Off]** is selected, no incoming digital audio signal is selected by the particular Source.

Note

 Priority is given to an incoming digital signal present at the assigned digital input over the assigned analogue audio input, even if both are present. To maintain the analogue audio input for the particular Source, select [Off] at the [Digital Audio] setting of the same [Source] menu.

• [Video]

A specific video input can be assigned a particular Source. The following are the assignable Video inputs:

[HDMI Blu-ray Player/2/3/4] > [Component 1/2/3] > [S-Video 1/2/3/4] > [S-Video Front] > [Composite 1/2/3/4] > [Composite Front]

If **[Off]** is selected, no video input signal is selected by the particular Source.

• [Trigger Out]

The Trigger Out for a particular Source is dependent on the configurations done in a separate menu on Trigger Setup (See [Trigger setup] below). If Trigger output is assigned to [Source setup] in the separate [Trigger setup] menu window, +12V will be available at +12V TRIGGER OUT port whenever a Source with [Trigger Out] set to [Yes] is recalled.

Another option is **[None]** whereby the particular Source is not assigned any Trigger Out.

Speaker setup

After connecting all ancillary sources and other combinations, the Speaker setup menu will guide you on how to manage and setup your speakers in order to achieve optimum sound acoustics in your listening environment.

Settings menu	
Source setup	SmartEQ
Speaker setup	Speaker Configuration
Trigger setup	Speaker Levels
Listening Mode setup	Speaker Distance
Video setup	
Language setup	

[SmartEQ]

Adjusts the tonal quality (bass/treble level) for each speaker. This applies to all sound fields and for each speaker.

Please refer to 'Setup'>'Speaker setup (SmartEQ)' for more information.

English

[Speaker Configuration]

Speaker Con	Speaker Configuration	
Front	: S 80Hz	
Center	: S 80Hz	
Surround	: S 80Hz	
Back	: S 80Hz	
Subwoofer	: On	

Every surround-sound system requires "bass-management" to direct low frequency content from any or all channels to the speakers best able to reproduce it. For this function to operate correctly, it is important that you correctly identify your speakers' capabilities. We use the terms **[S]** (small), **[L]** (large) and **[Off]**, but note that physical size may be irrelevant.

- **[S]** speaker is any model, regardless of physical size, that lacks significant deep-bass response, that is, at about 50 Hz to 160 Hz.
- **[L]** speaker is any full-range model, that is, one with deep-bass response
- [Off] speaker is one that is not present in your system. For example, you might not have any surround-back speakers installed; in that case, you would set the [Back] setup item to [Off].

- Note

• The default frequency setting for **each** speaker is 80 Hz.

Speaker Configuration can be managed and adjusted by pressing a combination of \blacktriangleright and then $\blacktriangle \lor$ buttons.

- Set [Front], [Center], [Surround] and [Back] to [L] (large), [S] (small) or [Off] along with their corresponding crossover frequency settings (available at Small setting from 50 Hz up to 160 Hz) as your sub-system's speakers require.
- Set [Subwoofer] to [On] or [Off], selecting [On] only if you have a subwoofer connected to the SW output socket.

[Speaker Levels]

Speaker Levels	5
Front Left	: 0dB
Center	: 0dB
Front Right	: 0dB
Surround Right	: 0dB
Back Right	: 0dB
Back Left	: 0dB
Surround Left	: 0dB
Subwoofer	: 0dB

Adjusting the relative balance of your system's loudspeakers ensures that surround-sound recordings, whether music or film, will present the balance of effects, music, and dialogue that the artists intended. Additionally, if your system incorporates a subwoofer it establishes a correct relationship between the volume of the subwoofer and the other speakers, and thus of low-frequencies (bass) to other sonic elements.

Adjust settings

English

Setting speaker levels at test mode While at [Speaker Levels] menu, press the **TEST TONE** button activating the High Definition A/V Receiver's Speaker Levels balancing test signal. You will hear a "surf" sound as you continue testing your speakers beginning with the Front Left. To test each channel, use the $\blacktriangle \nabla$ buttons to move up or down the speaker channels. If you do not hear the test signal, check your speaker connections or your [Speaker Setup] menu settings. Use the ▲▼ buttons to adjust the loudness of the noise output from the currently playing channel to the required level (it's usually simplest to begin with the Front Left). As you cycle the test signal around the speakers, the on-screen display will highlight the currently playing channel. The "level offset" reading on the right will change by 1 dB increments; ±12 dB adjustment is available. After adjusting a channel, press \blacktriangleright to effect the change in level. Press $\blacktriangle \nabla$ to go to the next channel.

- Note

- If you are balancing levels "by ear", choose one speaker—usually the centre— as a reference and adjust each of the others in turn to "sound as loud" as the reference. Be sure that you remain in the primary listening position while balancing all channels.
- All speakers must be in their final locations before level-setting.
- Due to the effects of room acoustics, matched-pair speakers (front; surround; back) will not always calibrate to exactly the same level offset readings.

You can exit "Test" mode at any time by pressing the **BACK/EXIT** button, bringing you back to **[Speaker setup]** menu.

[Speaker Distance]

Speaker Distance		
Front L off	· 0.0 m	
Center	: 0.0 m	
Front Right	: 0.0 m	
Surround Right	: 0.0 m	
Back Right	: 0.0 m	
Back Left	: 0.0 m	
Surround Left	: 0.0 m	•

Your system's speaker distance settings are a subtle but important refinement of your setup. Informing the High Definition A/V Receiver of the loudspeaker to listener dimensions of each speaker automatically imposes the correct delays, optimising imaging, intelligibility and surround-sound ambience. Enter your dimensions with precision within about 30 cm.

Setting speaker distance

While at [Speaker Distance] menu, use the ▲▼ buttons to individually set the following: [Front Left] > [Center] > [Front Right] > [Surround Right] > [Back] > [Surround Left] > [Subwoofer] to the distance measuring from your principal listening position to the front surface of their corresponding loudspeakers. Distance can be set up to 9 metres.

Trigger setup

Settings menu		
Source setup	Trigger out	: Main
Speaker setup	Delay	: 0s
Trigger setup		
Listening Mode setup		
Video setup		
Language setup		

The High Definition A/V Receiver features a configurable +12V DC Trigger Output that can be used to activate a device or system it is fed into.

[Trigger out]

Triggers are low voltage signals used to turn on/ off other compliant devices. There are two choices where +12V DC output can be assigned and these are – Main and Source Setup.

- [Main] +12V DC is available at the assigned Trigger Out when the High Definition A/V Receiver is at powered state.
- **[Source setup]** If Trigger Output is linked to "Source setup", +12V DC is available at Trigger Out whenever the particularly assigned Source is selected.

[Delay]

The availability of +12V DC at Trigger OUT can be regulated. If it is desired that +12V DC is available without delay the moment Trigger OUT is linked to its assigned setting, set Delay to 0s. Otherwise, one can select through a delay time of 1s to 15s.

Listening Mode setup

Settings menu	
Source setup	Listening Mode
Speaker setup	Dolby Setup
Trigger setup	DTS Setup
Listening Mode setup	
Video setup	
Language setup	

Please refer to 'Setup'> 'Setting up listening modes'> 'Listening Mode Setup' for more information.

Adjust listening modes

The High Definition A/V Receiver's listening modes have several variations and parametres that you can modify to suit your personal preferences. Use a combination of \triangleright and $\blacktriangle \lor$ buttons to configure the following settings.

On the Main Menu, use ▲▼ buttons to navigate through the menu and select [Listening mode], and then press ►.

Listening mode	Mode : PLIIx Music
Audio synchs	Center Width : 3
Tone controls	Dimensions : 0
Settings menu	Panorama : Off

[Listening Mode]

The following options can be selected from [Listening Mode] under [Mode] option. (This option is for a two-channel input only.)

- [Stereo]
- [PLIIx Music]
- [PLIIx Movie]

- [Stereo] All output is directed to the front left/right channels. Low frequencies are directed by default to the subwoofer if one is present in the Speaker settings. Select "Stereo" when you wish to listen to a stereo (or monaural) production, such as music CD or FM broadcast, without surround enhancement. Stereo recordings whether in PCM/digital or analogue form and whether surround encoded or not encoded, are reproduced as recorded. Multi-channel digital recordings (Dolby Digital and DTS) are reproduced in "Stereo Downmix" mode via the front left/right channels only as Lt/Rt (left/right-total) signals.
- **[PLIIx Movie]** Provides more stable imaging and full bandwidth sound to the rear channels offering sound that is more similar to Dolby Digital decoding.
- **[PLIIx Music]** For two channel signals, PLIIx Music features three additional user controls - Dimension, Centre Width, and Panorama.
 - [Center Width (0 to 7)] Modify the "hard-centeredness" of the centre image, by gradually mixing mono centre content to the Front left/right speakers as well. A setting of 0 retains the centrechannel-only default while a setting of 7 yields a fully phantom centre channel.
 - [Dimension (-3 to +3)] Adjust front-rear emphasis of the surround effect independently from the relative channel levels.
 - [Panorama (On/Off)] Add a "wrap around" effect by extending some stereo content into the surround channels.

Note

- PLIIx Movie or PLIIx Music modes belongs to Dolby Pro Logic IIx that processes both stereo and 5.1 signals into a 6.1 or 7.1 channel output.
- Pro Logic IIx mode will decode as Pro Logic II mode when the [Back] surround speakers are set to [Off] from [Speaker Configuration] menu. (See 'Adjust settings' > 'Settings menu' > 'Speaker setup' > [Speaker Configuration]).

The following chart shows the channels available assuming they are enabled in the "Speaker Configuration" menu.

Listening Mode	Active Decoded Output Channels	
Two-Channel Sources	5.1 Speaker System	7.1 Speaker System
Dolby Pro	Front: (left &	Front (left &
Logic IIx	right), Centre,	right), Centre,
Music	Surround	Surround (left
Dolby Pro	(left & right),	& right) and
Logic IIx	Back:	Back Surround
Movie	Surround,	(left and right)
	Subwoofer	and subwoofer

[Audio synchs]

Listening mode	Lip Sync Delay:200ms
Audio synchs	
Tone controls	
Settings menu	

Audio synchs has the feature **[Lip Sync Delay]** whose function is to match any delay that may occur in the picture relative to the audio.

By varying **[Lip Sync Delay]** from 0ms to 200ms, one can delay the audio output in order to synchronise it with the video image.

[Tone controls]

	Listening mode	Pure tone	: Off	
	Audio synchs	Treble	: 0dB	
	Tone controls	Bass	: 0dB	
-	Settings menu			

Pure Tone allows you vary or completely bypass the tone control section of the High Definition A/V Receiver.

- If [Off] is selected, the Tone Control circuits are active. Select [On] to bypass the Tone Controls effectively defeating the effect of the tone control circuits.
 The High Definition A/V Receiver has two Tone Control levels [Treble] and [Bass].
- Bass and Treble controls only affect the low bass and high treble leaving the critical midrange frequencies free of colouration. These controls allow one to tweak on-the-fly, the frequency response of the source. Use the ▲▼ buttons to adjust Treble and Bass within the range ± 10 dB

Video setup

	Settings menu	
	Source setup	Picture setup
	Speaker setup	
	Trigger setup	
	Listening Mode setup	
Г	Video setup	
	Language setup	

[Picture setup]

Picture setup	
Video modes	: Custom
Brightness	: 50
Contrast	: 50
Color	: 50
MPEG Noise reduction	: Off
Cross Color suppresor	: Off
Film Mode detection	: Off

Picture setup can be defaulted to **[Normal]** or **[Custom]**. While at **[Video modes]** menu item, select **[Normal]** to retain the default picture setup settings. If you would like to further improve the picture settings or adjust the parametres according to your preference, set **[Video modes]** to **[Custom]**. The following parametres can be adjusted.

- [Brightness] Adjust overall brightness of the picture.
- [Contrast] Adjust bright areas (white level) of the picture.
- [Color] If brightness and contrast levels are set optimally, adjust the colour control to the level of your preference.
- [MPEG Noise reduction] This setting is designed to address two specific types of video distortion - mosquito noise and blocking artifacts. Set the level to High, Medium or Low.

- [Cross Color suppressor] Remove cross colour artifacts that can occur when high-frequency luminance (brightness) signals are misinterpreted as chroma (colour) signals. This can cause unwanted flickering, flashing colours or rainbow patterns. Select [On] to turn on this feature; otherwise, select [Off].
- [Film Mode detection] Turn on this setting to compensate for authoring errors that may have occurred during the process of converting film programmes to video.

Language setup

Settings menu	
Source setup	English
Speaker setup	
Trigger setup	
Listening Mode setup	
Video setup	
Language setup	L

This menu allows you to set the menu display language of the High Definition A/V Receiver.

7 Troubleshooting

Warning!

• Risk of electric shock. Never remove the casing of this player.

To keep the warranty valid, never try to repair the system yourself.

If you encounter problems when using this player, check the following points before requesting service. If the problem remains unsolved, register your High Definition A/V Receiver and get support at www.philips.com/ welcome.

If you contact Philips, you will be asked for the model and serial number of your High Definition A/V Receiver. The model number and serial number are on the back or bottom of this player. Write the numbers here:

Model No._____ Serial No._____

Main unit

High Definition A/V Receiver does not respond to remote control commands.

- Check batteries.
- Check IR windows and ensure clear Line of Sight from remote to High Definition A/V Receiver.
- Reduce sunlight/room lighting.

Restore all the settings to its factory defaults.

 Press TUNER FM/AM to switch to FM mode, then press and hold SURROUND on the front panel until the "FACTORY RESET" appears on the display panel.

Sound

No sound from all channels.

Check AC cable connection and outlet.

No sound from some channels.

- Check speaker cables.
- Check "Speaker Configuration" menu.

No sound from surround channels.

- Select appropriate listening mode.
- Correct [Speakers setup] or [Speaker Levels] settings.

No sound from subwoofer.

- Power-up subwoofer, check Sub's AC outlet or check connections.
- Correct [Speaker Configuration] or
 [Speaker Levels] settings.
- It is recommended to adjust the 'Output Level' knob of the subwoofer only to a reasonable loudness.

No sound from centre channel.

- Play a known 5.1-channel recording or select Dolby Pro Logic IIx Music mode.
- Correct [Speaker Configuration] or [Speaker Levels] settings.

No Dolby Digital/ DTS.

- Check connections.
- Check source device setup.

While watching video, lip movements and sound are not synched up.

1) Press SETUP or MENU. 2) Select
 [Audio synchs] > [Lip Sync Delay]. 3)

 Press ▲▼ to set the audio delay value until the lip movements and sound match.

English

8 Specifications

- Note

- Specification and design are subject to change without notice.
- This High Definition A/V Receiver does not support Philips EasyLink.

Accessories supplied

- 1 AM loop antenna
- 1 FM antenna cable
- 1 AC power cord (detachable for receiver's power cord)
- 1 remote control with 2 AA batteries
- 1 microphone (for automatic calibration of speaker system)
- Speakers and subwoofer (for HTR9900 only)
- Quick Start Guide

Amplifier

- Power output (ref. 0.08 % THD, 8 Ω):
 - Stereo mode: 2 × 115 W
 - Surround mode: $7 \times 60 \text{ W}$
- Total harmonic distortion at rated power: 0.08 %
- IM distortion at rated power: 0.08 %
- Damping factor, 8 Ω: > 60
- Input sensitivity and impedance: 300 mV/47 $k\Omega$
- Frequency response: ±0.5 dB (ref. 20Hz 20 kHz)
- Signal/noise ratio, A-weighted:
 - > 100 dB (ref. rated power 8Ω)
 - > 90 dB (ref. 1W 8Ω)
- Trigger out DC voltage: 12V / 150mA

Tuner (AM Band)

- Tuning range: 522 kHz 1620 kHz Usable sensitivity: 60 dBu
- Signal/noise ratio: 40 dB
- Total Harmonic Distortion: 1.5 %

Tuner (FM Band)

- Tuning range: 87.5 MHz 108 MHz
- Usable sensitivity, Mono: 10 dBμ
- Signal/noise ratio, Mono: 70 dB
- Signal/noise ratio, Stereo: 65 dB
- Total Harmonic Distortion, Mono: 0.3 %
- Total Harmonic Distortion, Stereo: 0.5 %
- Channel Separation: 40 dB^o
- RDS decode sensitivity: 0.2 %

Main Unit

- Unit Dimensions (W × H × D): 435 × 167 × 394 mm
- Net Weight: 13.3 kg
- Shipping Weight: 16.2 kg
- Standby power consumption: <1.8W

Power (Subwoofer)

- Power supply: 220~240 V, 50 Hz
- Power consumption: 200 W
- System: Bass Reflex System
- Impedance: 4 ohm
- Speaker drivers: 165 mm (8'') woofer
- Frequency response: 50 Hz 160 Hz (Adjustable)
- Dimensions (WxHxD): 336 x 424.5 x 366 (mm)
- Weight: 12.7 kg

Speakers

- System: full range satellite
- Speaker impedance: 8 ohm
- Speaker drivers:
 - Centre: 2 × 4" woofer + 1× 1" tweeter
 - Front: 2x 4" woofer + 1x 1.5" tweeter
 - Surround: 2x 4" woofer + 1x 1.5" tweeter
 - Surround Back: 2x 4" woofer + 1x 1.5" tweeter
 - Frequency response: 70 Hz 20 kHz
- Dimensions (WxHxD):
 - Centre: 435.4 × 103.8 × 95.4 (mm)
 - Front/Surround: 275 x 1117.8 x 288 (mm)
 - Surround back: 275 x 1117.8 x 288 (mm)
- Weight:
 - Centre: 1.54 kg
 - Front/Surround: 7.14 kg
 - Surround back: 6.32 kg



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