



Home Cinema Audio System

MX980D

Digital Audio/Video Surround Receiver Package

- **Integrated DTS, Dolby Digital® (AC-3) and Pro-Logic Surround Sound decoder**
- **6-Speaker Package with Subwoofer** (customized acoustical speaker design!)
- **550 Watts Surround Power Output :**
5 x 100 Watts equal power per channel, and 50 Watts Powered Subwoofer
- **Digital Surround Processing via TETRA CORE**
- **Automatic Sound Type Detection** (Dolby Digital, Dolby Pro-Logic, DTS or PCM audio)
- **Natural Surround for more realistic Surround Sound**
- **Unique digital stereo downmix from multichannel sound** (record audio from DVD's)
- **'Hall' for normal stereo with rear speaker sound**
- **Loudness, Bass and Treble Control**
- **96kHz processing** (enables connection to DVD-Audio player)
- **Night mode for Dynamic Range Compression of Digital Sound**
- **12 Audio Input connections in total**
- **4 Digital Inputs** (2 coax, 2 optical) **and a Digital Output Connection** (coax) **for Digital (CD) Recordings**
- **4 Video Input and 2 Output Connections** (including 5 S-Video connectors)
- **6 Channel Input terminal** (for any new sound format)
- **Easy Hook up via Color Coded Speaker Connections**
- **Screw terminals for Left, Right and Center speaker connections**
- **'Cinema Link' System Control Bus**
- **51-key Audio/Video MultiBrand Universal Remote Control**
- **Menu Navigator Rotary Knob for quick set-up**
- **Harmonized Philips Home Cinema Components design**



Let's make things better.



PHILIPS

Home Cinema Audio System

MX980D

Sound Enhancement

Dolby Digital Surround Sound - Available on DVD, Laserdisc®, satellite broadcasts, Cable and as the standard for HDTV. Dolby Digital® offers the ultimate experience in home theater surround with six discrete channels of digital CD sound. Discrete means that each channel carries its own sound and depending on what happens on screen each speaker plays its own unique role in providing the right sound. Front left, center and right join two surround speakers to reproduce highs, mid and bass frequencies in five full-range channels of surround. Bass rumble, explosions and low frequency effects you feel are delivered through a dedicated sixth, subwoofer channel.

DTS - DTS surround sound is a cinema surround sound audio format that offers superior digital audio performance than other available surround sound formats. DTS offer more clarity and definition especially for higher tones. The better sound quality is a direct result of the limited sound compression (3:1 instead of 11:1 for Dolby Digital) and the 20-bit resolution. DTS movie and music software is available on various DVD and CD titles.

6-speaker package - No less than 5 full range loudspeakers to build your personal cinema. The five speakers are acoustically specially designed to match the tonal characteristics of the receiver. Front left and right and surround left and right speaker are tri-cone systems with a 5 1/4" driver; a 2" ferro fluid tweeter and a 6 1/2" passive radiator for improved bass performance and reduced distortion. The center speaker is three-way; carrying 2 4" drivers and a 2" tweeter. Front left, right and center speaker are magnetically protected to prevent any interference with television picture tube purity. The sixth speaker is a 50 watt powered subwoofer.

550W surround power output - The five, 3x100W (left, right, center) and 2x100W (rear), receiver amplifiers together with the 50W subwoofer amplifier deliver 550 Watts of home theater power. The stereo output power of 100W per channel is specified at 6 Ohm, 40Hz-20kHz and 0.7% total harmonic distortion (THD). The amplifiers have been designed with special attention to a short 'rise' and 'fall' time, so characteristic for the frequent and sudden drastic changes in dynamics of movie sound in general. Furthermore, the amplification reserves are designed such that they are more than sufficient to follow sudden needs for more sound pressure.

50 W powered subwoofer - Subwoofers add dynamism to normal music and motion pictures. It sets the stage for a more intense sensation. The 50W Philips subwoofer features a down-firing 5 1/4" woofer to reflect sound waves off the floor, thereby adding impact. In addition a 50-150Hz crossover adjustment knob and a bass level control rotary are present. In all, the subwoofer is sufficiently power packed to generate that cinema essential sonic sound boom.

Digital Sound Processing via Tetra CORE - The Philips Tetra Core sound processor is the successor to the DUET Core. The Tetra Core IC decodes Dolby Digital, DTS and Dolby Pro-Logic surround sound. Its huge processing power of 100 MIPS (million instructions per second) and resolution of 24-bits assures the highest possible accuracy in digital audio processing. The Tetra Core accepts incoming digital signals with sampling frequencies of 32, 44.1, 48 and 96 kHz (the latter is used in DVD-Audio). Other characteristics are automatic source detection (Dolby Digital, DTS, MPEG and PCM audio) with smooth (clicking free) switching. Lastly, the Tetra Core carries digital bass cross-over filters (for subwoofer signal) and 4th generation virtualizer algorithms for highly realistic virtual surround sound.

Natural Surround - Natural Surround creates a more realistic (natural) surround sound impression by creating phantom speakers in addition to the real speakers. These phantom speakers are created using psycho-acoustical sound encoding algorithms. Natural Surround gives the listener the impression of being surrounded by a 'wall of sound' and thus creates an even higher sense of realism. Natural Surround consists of in fact two features: multi-front and multi-rear; which can be activated individually or simultaneously. In case of multi-front, phantom speakers are added to the front speakers. For multi-rear phantom speakers are added to the rear speakers.

Virtual 3D Surround / Virtual Dolby® Surround - A Dolby Surround playback system delivers amazingly rich and convincing surround sound from only two (or three) front speakers. The Pro-Logic, Dolby Digital® or DTS surround channel is processed by a 'virtualizer' DSP to add the surround effect from just the front speakers.

Sound Enhancement

96kHz capable - DVD Audio offers 96kHz sound quality. As the processor of the receiver (Tetra Core) is capable of handling 96kHz and processing it in 24-bits, a DVD Audio player can be digitally connected to the receiver whilst preserving the sound quality of DVD Audio. At the same time the digital output will provide a signal that can be recorded on any digital recorder like CDR.

Screw terminals - For left, right and center speaker connection ensures a loss-less flow of electrical signals from the set to all main loudspeakers.

Convenience

Night mode - Establishes dynamic range compression of digital sound to reduce the volume differences between the loud and soft passages in source material with digital surround sound where sound level differences can be so dramatic. This feature is especially useful at night when you don't want to disturb the neighbors or wake up the kids!

Digital inputs and output - 4 digital inputs (2 coax, 2 optical) are foreseen to connect digital sound sources (e.g. DVD player, CD player and Digital TV). A digital output connection (coax) is foreseen to enable digital (CD) recordings from any of the digital inputs. Each of the digital input connectors can be freely assigned to any of the main sources.

Stereo Downmix - The digital output will automatically provide a stereo downmix in case a multichannel signal is detected at any of the digital input connectors. In that way digital audio recordings can be made from movie DVD's (e.g. Live concerts from music DVD's)

Video Connections - 4 video input connections and 2 outputs (incl. monitor) are foreseen to hook up video sources. As these video inputs switch simultaneously with the audio inputs, correct picture with correct sound is guaranteed. The backside has in addition to the composite video connections with 5 S-Video connectors.

Front A/V, Game Input - For quick and easy connection to e.g. a camcorder or a video game console.

6 Channel input - Six input selectors at the back of the set allow to connect to any type of multichannel decoder. Be it DVD Audio or Super Audio CD. The 6 Channel input makes your system future proof!

Easy hook up - With color coded speaker connections for quick and easy connection of all loudspeakers. By using distinct colors for each of the speaker connection terminal on the speaker and on the set, and using the same color for the cable, the chance of faulty connection (and customer complaints) are practically zero!

Cinema Link System Control Bus - When connected to a Philips TV with 'Cinema Link' (and even better, in addition a Philips VCR and/or DVD player), the combination offers an interesting range of extra user benefits: One Touch Cinema - upon starting your e.g. DVD disc, the complete system will automatically switch to the correct source and sound mode. High Resolution OSD - the onscreen display of the television will feature the 'receiver' menu option. This option can be used for easier receiver set-up and receiver settings. Multiple Languages - depending on the languages offered by the TV (likely are Spanish, French and English) the user can operate the set via the TV menu in his/her native language. TV as Center speaker - allows to get rid of the separate center speaker and use all the speakers and amplifiers in the TV to function as center speaker (most large screen Philips TVs provide over 100W of sound pressure). One Touch End - puts your complete home theater system into standby after some exciting hours of cinema enjoyment.

51-key Audio/Video Multi Brand Universal remote control - To operate all main receiver functions and Philips, Magnavox or any other mainstream branded CD player, tape deck, VCR, television and DVD player, Satellite or cable box! The remote will operate your non-Philips/Magnavox equipment by simply entering a code from the instruction manual in the remote control. The remote has a clear ergonomically designed lay-out (see picture)

30 tuner presets with station name display - The available tuner presets can be randomly used to store AM and FM stations (30 in total). Each of the presets can be given a user defined name of up to 8 characters. Giving the preset a name is as easy as 1-2-3 with the menu navigator.

2 switched mains outlets - Allows to connect another HiFi component. Switching the receiver to standby will automatically switch off the connected set.

Convenience

Standby power <2W - To help save energy consumption, the standby transformer of this set has been designed not to consume more than 2 Watt in standby mode.

Design

Harmonized Philips Home Cinema Components Design - The design of this component follows the design language of the Philips Harmonized Home Cinema design. Characteristics of this design language are stylish, simple, capable, powerful and rich. All Philips Home Cinema components and HiFi components will follow this design (e.g. VCR, CD Changer, CD Recorder DVD, etc).

Connections

- Audio inputs/outputs
 - Phono : in
 - CD : in
 - CDR/Tape : in/out
 - TV : in
 - SAT : in
 - VCR : in/out
 - Front A/V Game : in
 - 6 CH/DVD : in
 - DVD : see digital audio inputs/outputs
 - Headphone : 6.3mm
- Digital audio in/output
 - 2 digital coax connections : in
 - 2 optical toslink connections : in
 - 1 digital coax connection : out
- Video inputs/outputs
 - DVD : 4 input sources, 2 output connections (including 5 S-Video connectors)
 - SAT : in..... (S-Video)
 - VCR : in..... (S-Video)
 - Front A/V Game : in/out..... (2 x S-Video)
 - Monitor : in
- Speaker Connections suitable for speakers ≥ 6 Ohm
 - left, right, center : screw type connection
 - rear left, right : click-fit connection
- Miscellaneous connections
 - Cinema Link System control bus
 - subwoofer pre-out : 1
 - center pre-out : 2
 - mains outlet : switched 2x
 - AM antenna : loop type
 - FM antenna : click-fit 300 Ohm

UPC Code: 0 37849 89371 5

Product Dimensions:

17.1" W x 5.3" H x 13.8" D (set)

8.6" W x 16.6" H x 7.6" D (l/r; center and rear speakers)

17.1" W x 5.2" H x 4.8" D (center speaker)

9.3" W x 12.2" H x 14" D (subwoofer)

Product weight: 20.7 lbs.

Package Dimensions:

37.8" W x 20.7" H x 22.1" D

Total package weight: 68.3 lbs

Carton contains: receiver FR975/17, remote control, batteries, instruction for use, AM + FM antenna, quick installation card, warrantee information, 6 loudspeakers (incl. subwoofer), loudspeaker cable (L/R: 2x13ft, C: 1x10ft, S: 2x39ft), subwoofer mains + connection cable, 'Cinema Link' cable, coax cable

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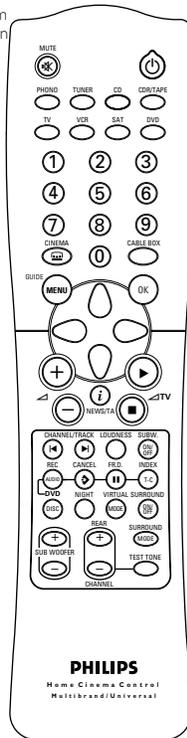
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"DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems Inc.

As an ENERGY STAR® Partner, Philips has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

* Dolby Digital Laserdisc use requires optional AC-3 RF demodulator



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