IN-CAR Terminology

A

A2 Stereo	The official audio standard for analog television broadcasting in Australia. It is a technique of implementing stereo or dual-mono audio for NTSC and PAL video. One FM subcarrier transmits a L+R signal, and a second FM subcarrier transmits a R signal (for stereo) or a second L+R signal. Also known as Zweiton Stereo.
A-B Repeat	The player will loop (repeat) a portion of a disc between two designated points.
AC-3	See Dolby.
Acoustic Transform Acoustic Coding (ATRAC)	Technology that compresses audio data discarding the information that is undetectable by the human ear whilst preserving CD-quality sound. • ATRAC: Achieves approximately 80% compression rate in comparison to original sound file. The original technology employed by MiniDisc. • ATRAC3: Improves upon ATRAC by achieving approximately 90% compression. The technology employed by MiniDisc Long Play (MDLP). • ATRAC3 Plus: Further improves upon ATRAC by achieving approximately 93% compression, with improved fidelity over standard ATRAC3.
Active Black Panel (ABP)	In standby mode, the unit is camouflaged as a flat black panel. In display mode, the panel puts on a brilliant colourful light show, also giving you access to most functions. In operational mode, the motorised panel swings out revealing the full control panel and slots for discs.
Advanced Dynamic Sound Generator (ADSG)	Selectively improves the bass and treble segment of your music. Unlike other technologies that cause unwanted phase change in the mid-range section, ADSG produces natural sound effect without introducing distortion.
Alternating Current (AC)	An electrical current which, unlike Direct Current (DC), reverses flow direction at regular intervals, measured in cycles per seconds or Hertz. The Australian standard is 230V, 50Hz.
American National Standards Institute (ANSI)	A standards-setting, non-governmental organisation that develops and publishes standards for voluntary use in the United States.
Amplitude Modulation (AM)	A technique for transmitting radio signals. See also Medium Wave (MW).
Analog to Digital Converter (ADC or A/D)	This is the process of converting analog signal to digital signal. The accuracy depends on the sampling frequency and the number of bits used to describe the levels.
ANSI Lumen	A standard measurement of light output.
Artifact	Defect commonly occurring in digital video resembling pixelation of the video image.
Aspect Ratio	The relationship of width and height. When an image is displayed on different screens, the aspect ratio must be kept the same to avoid either vertical or horizontal stretching. • 4:3: The picture aspect ratio of traditional video. • 16:9: The picture aspect ratio that approximates that of 35mm film. Also known as Widescreen. • 2.35:1: The picture aspect ratio of some 35 and 70mm film.
AT Attachment Packet Interface (ATAPI)	A hardware and software specification that documents the interface between a host computer and CD-ROM drives using the ATA bus.
Audio Frequency Modulation (AFM)	The audio recording technology used in Video 8 and Hi8 Handycam camcorders.

Audio Video Interleaved (AVI)	A multimedia file format for storing sound and moving pictures in RIFF format developed by Microsoft. An AVI file can use different codecs and formats so there is no set format for an AVI file.
Automatic Focus (AF)	Senses the distance between camera and subject, and adjusts the lens focus accordingly. • AF Illuminator: Emits a orange light, making it possible to focus on an object that is normally difficult in a dark place. • Hologram AF: An enhanced technology that emits a red laser pattern for further improved low light focusing.
Automatic Gain Control (AGC)	A system to control the gain, or the increase in the amplitude of an electrical signal from the original input to the amplified output, automatically.
Automatic Level Control (ALC)	See Automatic Gain Control (AGC).
Automatic Music Sensor (AMS)	Automatically locates the beginning of the current or following selection.
Automatic Record Level (ARL)	See Automatic Gain Control (AGC).
Automatic Volume Limiting System (AVLS)	Delivers you maximum acoustics without sound leak — all at volume levels that won't damage your ears. Playback will not exceed preset volume limits, which means that even when you are on the move, volume will not accidentally increase to an uncomfortable level

B

Balance	The relative loudness between the left and right channel signals.
Barcus-Berry Electronics (BBE)	Reduces audio distortion, adding a longer delay time to lower frequencies so that higher frequencies are transmitted simultaneously, thereby neutralising the distortion effect.
Basic Input/Output System (BIOS)	A set of routines that works closely with the hardware to support the transfer of information between elements of the system, such as memory, disks, and the monitor. Although critical to performance, the BIOS is usually invisible to the end user; however, programmers can access it.
Bass Reflex	A popular type of loudspeaker enclosure in which an open port at the front or rear baffle allows internal air pressure to reinforce bass response.
Best Tuning Memory (BTM)	Automatically selects and stores the stations with the strongest signals, in order of frequency.
Bi Pixel IP Conversion	Used to convert standard (interlaced) video into a progressive signal which can be displayed by a panel display device (plasma etc). Responds to changes in PAL video signal content by employing proprietary algorithms to handle the challenging task of processing video originated content, which reduces motion artifacts for smoother image reproduction.
Bit Error Rate (BER)	The ratio of received bits that are in error relative to the total number of bits received. It is used as a measure of noise induced distortion in a digital bit stream. BER is expressed as a power of ten.
Bit Rate	The digital equivalent of bandwidth, bit rate is measured in bits per second (bps). It is used to express the rate at which the compressed bit stream is transmitted. With a higher bit rate, more information can be carried.
Block Noise Reduction	Suppresses vertical edge distortions for a smoother, more natural DVD picture.

Bluetooth	A standard for wireless connectivity. It is designed to eliminate cables between portable consumer devices such as cellular phones, laptop computers, PDAs and many other electronic products. • Basic Imaging Profile (BIP): A unified standard for image data transfer.
Bus Powered	Power is supplied through the computer to the external device, eliminating the need for a power supply.

C

CD Syncro Recording	Simplifies making MiniDiscs from compatible Sony CD players by releasing from Record/Pause mode when the CD player goes into Play.
CD Text	CD Text gives you valuable information with CD text compatible software. Album name, artiste description, and song title can be easily accessed from the display.
Charged Coupled Device (CCD)	A semiconductor device that can produce an electrical output analogous to the amount of light striking each of its elements. CCD sensors are used in both motion video and still video cameras.
Cinema Black Mode	Lamp wattage output is reduced along with fan noise. Cinema Black Mode increases blackness, extends lamp life and is ideal for viewing film sources.
Coaxial Digital	An coaxial digital line allows you to transfer sound in lossless, digital quality.
Coded Orthogonal Frequency Division Multiplexing (COFDM)	Coded OFDM (COFDM) adds forward error correction to the OFDM method, which is the modulation technique used for digital TV in Europe, Japan and Australia.
Coder-Decoder (CODEC)	Hardware or software that converts analog sound, speech or video to digital code and vice versa (analog to digital — digital to analog). Video codecs are generally broken into two categories: low bandwidth codecs that operate at 56kbps to 384kbps, and high bandwidth codecs that operate at 384kbps and above.
Colour Slow Shutter	Slows down shutter speed to record full colour detail in low light situations.
Colour Temperature	A measure of the colour of a light source relative to a black body at a particular temperature, expressed in degrees Kelvin (°K). Low colour temperatures have a red-yellow tone; daylight has a high colour temperature (approximately 6000°K) and appears bluish.
Comb Filter	Improves NTSC video signals by adjusting the horizontal scanning lines within a frame.
Compact Disc (CD)	Optical digital disc storage that encompasses audio, video, and computer data. • CD Digital Audio (CDDA): 44.1kHz audio, 80 minutes capacity. • CD Recordable (CD-R): Write-once media, 700MB capacity, optimised for data use. • CD ReWritable (CD-RW): Re-writable media, 700MB capacity, optimised for data use. • CD Read-only Memory (CD-ROM): Pre-recorded media, 700MB capacity, optimised for data use. • CD Interactive (CD-i): Provides audio, digital data, still graphics, and limited-motion video. • CD plus Graphics (CD+G): Provides audio and still graphics. Primarily used for karaoke. • China Video Disc (CVD): Precursor to SVCD. MPEG-2 352x480 NTSC, 352x576 PAL, 44.1kHz audio, approximately 45 minutes capacity. • Super Video CD (SVCD): MPEG-2 480x480 NTSC, 480x576 PAL, 44.1kHz audio, approximately 45 minutes capacity. • Video CD (VCD): MPEG-1 320x240 NTSC, 320x288 PAL, 44.1kHz audio, 70 minutes capacity.

Component Video	A video system containing three separate colour component signals, either red/green/blue (RGB) or chroma/colour difference (YCbCr, YPbPr, YUV) delivering enhanced detail and purity.
Composite Video Baseband Signal (CVBS)	An analog video signal in which the luminance and chrominance components are combined (by frequency multiplexing), along with sync and burst. Also known as CVBS.
Constant Angular Velocity (CAV)	A buffer memory mechanism that prevents its portable audio equipment from skipping under most conditions. The technology recovers laser position 10 times faster than previous designs; so it can withstand the impact of jogging (and other sports).
Constant Bit Rate (CBR)	A uniform transmission rate.
Content Scrambling System (CSS)	An encryption scheme designed to protect copyrighted material that resides on a disc by periodically scrambling the data using encryption keys.
Contrast Ratio	The measurement of the difference in light intensity between the brightest white and the darkest black.
Control A1	Multifunctional data bus system for better communication between Sony audio components.
Control L	See LANC.

D

D-Bass	Delivers dynamic, powerful bass reproduction, with 3 bass boost steps for adjustment of the bass enhancement level.
Decibel (dB)	The logarithmic unit of measurement to compare the relative intensity of acoustic or electrical signal, equal to one-tenth of a Bel, named for American inventor Alexander Graham Bell (1847 to 1922).
Depth of Field	The distance between the first object in focus and the last object in focus within a scene as viewed by a particular lens. Depth of field is affected by choice of lens, focal length and aperture. Depth of field increases with shorter focal lengths and smaller aperture openings.
Diamond-Like Carbon (DLC)	A thin carbon-based coating that has high hardness and low friction.
Digital 8 (D8)	Digital recording format using traditional 8mm tapes. Many Digital 8 camcorders can view 8mm and Hi8 tapes, but Digital 8 recordings can't be viewed on an 8mm or Hi8 camcorder.
Digital Audio Tape (DAT)	A consumer & professional recording and playback media for high-quality audio.
Digital Auto Tracking	Automatically check the tracking when a video tape starts playing and adjusts if necessary.
Digital Cinema Sound (DCS)	Recreates the sound characteristics of Hollywood dubbing studios used for recording movie soundtracks. It is a combination of Cinema Studio reverberation, Virtual Multi Dimension and Screen Depth Matching. This is all made possible by a powerful digital signal processing chip that improves on the dynamism of every soundtrack. • Cinema Studio A: Sony Pictures Entertainment Cary Grant Theatre, suitable for most movies. • Cinema Studio B: Sony Pictures Entertainment Kim Novak theatre, ideal for action movies. • Cinema Studio C: Sony Pictures Entertainment Scoring Studio, ideal for musicals or orchestral soundtracks.
Digital Constant Image (DCI)	Only switching the pixels in an LCD projector, in parts of the picture when movement is present ensures a clean stable picture with no flicker.

Digital Extended Processor (DXP)	Increasing the signal to 14-bits achieves a more accurate conversion through improved signal to noise ratio, and results in more vivid capture of both light and dark images, while also rendering a more detailed and clearer picture.
Digital Noise Reduction (DNR)	When video signals are compressed, digital noise can appear on some portions of a DVD disc and are sometimes visible to a discerning videophile. Digital Noise Reduction results in less flickering in still background portions.
Digital Pitch Control (DPC)	Makes high/low speed play-back voices sound more normal, making it easier to understand the recorded words.
Digital Reality Creation — Multi Function (DRC-MF)	Uses a digital signal processing based algorithm to deliver sharper and clearer images. • DRC1250: Reduces the visible scanning lines of a video picture. • DRC100: Uses real-time field doubling to create a smooth, flicker-free video picture. • DRC Progressive: Creates an excellent still image with minimal flicker and less visible scanning lines of a video picture.
Digital Signal Processing (DSP)	Circuit that reproduces sound in the appropriate setting: movies in a Theatre, classical music in a Hall, rock music in an Arena, for example.
Digital Television (DTV)	See HDTV and SDTV.
Digital Theater Systems (DTS)	DTS is a multichannel audio compression format similar to Dolby Digital, but differing in that it generally uses higher data rates offering better quality. • DTS: Digital discrete 5.1 sound (left, centre, right, rear left, rear right, low frequency emitter). • DTS Discrete 6.1: Digital discrete 6.1 sound (left, centre, right, rear left, rear centre, rear right, low frequency emitter). • DTS ES 96/24: Digital discrete 5.1 sound (left, centre, right, rear left, rear right, low frequency emitter) using extended bandwidth (up to 96kHz) designed for music. • DTS ES Matrix 6.1: Digital discrete 5.1 sound (left, centre, right, rear left, rear centre, rear right, low frequency emitter) with matrix rear centre. • DTS Neo 6: Digital matrix 6.1 sound (left, centre, right, rear left, rear centre, rear right, low frequency emitter).
Digital to Analog Converter (DAC)	A conversion process that takes a digital signal and converts it into an analog signal usually by a process of filtering. • Advanced Pulse DAC: Uses a high precision algorithm to produce an extremely high pulse density; resulting in better sound quality.
Digital Versatile Disc (DVD)	Optical digital disc storage that encompasses audio, video, and computer data. DVD uses the UDF file system. Single-side, single-layer discs have 4.7GB capacity; through to double-sided, dual-layer discs with 17GB capacity. • DVD Video: Pre-mastered video discs. • DVD Audio (DVD-A): Pre-mastered media incorporating extended bandwidth or 5.1 channel audio along with limited video content. • DVD Read Only Memory (DVD-ROM): Pre-recorded media, 4.7GB capacity, optimised for data use. • DVD "Minus" Recordable (DVD-R): Write-once media, 4.7GB capacity, optimised for video use. • DVD "Minus" ReWritable (DVD-RW): Re-writable (1,000 times) media, 4.7GB capacity, optimised for video use. • DVD "Minus" ReWritable Video Recording Mode (DVD-RW VR Mode): Allows for added flexibility when recording and editing. Features such as in camera editing, erase and re-recording, play list display are possible. Playback is limited to compatible products.

	• DVD "Minus" Random Access Memory (DVD-RAM): Re-writable media, 4.7GB capacity, optimised for data use. • DVD "Plus" Recordable (DVD+R): Write-once media, 4.7GB capacity, optimised for video and data use. • DVD "Plus" ReWritable (DVD+RW): Re-writable (100,000 times) media, 4.7GB capacity, optimised for video and data use.
Digital Video Broadcasting (DVB)	The transmission scheme for terrestrial digital television.
Digital Video Enhancer (DVE)	Utilises advanced digital signal processing to greatly improve image quality. Edges are sharpened and bright and dark images are separated without adding contrast to the overall image.
Digital Video Interface (DVI)	A specification created by the Digital Display Working Group (DDWG) to accommodate analog and digital monitors with a single connector. • DVI-A: For analog signals. • DVI-D: For digital signals. • DVD-I: For integrated (combined) analog or digital signals.
Direct Current (DC)	An electrical current which, unlike Alternate Current (AC), maintains a steady flow and does not reverse directions. DC cannot be measured in cycles per seconds or Hz. DC current is either generated from a battery or derived from alternating current through a special circuit. Many electronic circuits require DC current in their operation.
Direct Digital Sync	Locks the Digital to Analogue converter to the master clock to prevent time based errors such as jitter or phasing anomalies. The results are improved imaging and depth.
Direct Memory Access (DMA)	A method of moving data from a device to memory (or vice versa) without the help of the microprocessor. The system board uses a DMA controller to handle a fixed number of channels, each of which can be used by only one device at a time.
Direct Stream Digital (DSD)	Is the advanced recording technology that makes SACD possible. Standard CDs use 44.1kHz/16-bit PCM to represent audio in digital form. DSD, on the other hand, is a 1-bit technology that samples music 2.82 million times per second, capturing 4 times more information. The resulting sound is warmer, smoother, and more "analog" than anything 44.1kHz/16-bit PCM can deliver.
Disc At Once (DAO)	The CD-ROM disc is created in one continuous write. This format can be read by all platforms and all CD-ROM drives.
Discrete Cosine Transform (DCT)	Method of data compression of digital video pictures by resolving blocks of the picture (8x8 pixels).
Dolby	• Dolby B: 10dB tape noise reduction. • Dolby C: 20dB tape noise reduction. • Dolby HX Pro: Avoids tape saturation and improves high-frequency headroom. Compatible with any playback deck, whether or not it has HX Pro circuitry. • Dolby Surround: Analog stereo matrix 3.0 sound (left, right, rear). • Dolby Surround Pro Logic: Analog stereo matrix 4.0 sound (left, centre, right, rear). • Dolby Surround Pro Logic II: Analog stereo matrix 5.1 sound (left, centre, right, rear left, rear right, low frequency effects). • Virtual Dolby Surround: Simulated surround sound through stereo speakers by utilising audio phase shifting. • Dolby Digital 5.1: Digital discrete 5.1 sound (left, centre, right, rear left, rear right, low frequency effects). Also known as AC-3. • Dolby Digital Surround EX: Digital discrete 5.1 sound (left, centre, right, rear left, rear centre, rear right, low frequency effects) with matrixed rear centre.

DRC-MF	Digital Reality Creation: Multi Function. A video processing technology that uses a digital signal processing based algorithm to deliver sharper and clearer images. • DRC1250: Reduces the visible scanning lines of a video picture. • DRC100: Uses real-time field doubling to create a smooth, flicker-free video picture. • DRC Progressive: Creates an excellent still image with minimal flicker and less visible scanning lines of a video picture.
Dye Sublimation	A printing process where wax film is thermally transferred to printing media. Dye sublimation is generally no more expensive than other methods; however, it provides extremely high quality.
Dynamic Bass Feed Back (DBFB)	A highly sensitive bass enhancement system that produces full-bodied bass sound even at low volumes.
Dynamic Range	The range, measured in decibels, between the largest and smallest reproduced signals.
Dynamic Sound Generator (DSG)	Selectively improves the bass and treble segment of your music. It produces natural sound effect without introducing distortion.
Dynamic Soundstage Organiser (DSO)	A virtual 3D sound technology that alleviates the problem of poor speaker placement and sound absorption in your car. DSO creates virtual "sound stages" that create the illusion of depth and distance between the speakers to your ears.

E

Electronic Program Guide (EPG)	An application used with digital set-top boxes and newer televisions to list current and scheduled programming plus a short summary or commentary for each program.
Electronic Shock Protection (ESP)	• ESP: Buffers the next 10 seconds of music data in advance. If the data flow is interrupted through shaking or shock, the data is read from the memory buffer so that the sound signal remains undisturbed. • Advanced ESP: When data in the memory buffer is low, the disc is read at twice the normal rate; resulting in purer sound quality than standard ESP. • ESPMAX: Utilizes part of the G-Protection fast recovery technology to provide 6x faster recovery than the conventional ESP².
Equaliser (EQ)	Allows adjustment of the level of specific audio frequencies. Most equalisers graphic equalisers can be pre-set or manually adjusted.
Extended Definition (ED)	A speaker design that accommodates the far wider frequency response of high-resolution audio sources like the Super Audio Compact Disc. Compared to the conventional cut-off of 20,000Hz; it can achieve a response of 50,000Hz or more.
Extended Graphics Array (XGA)	An XGA display has 1020 horizontal pixels by 768 vertical pixels, giving it a total display resolution of 783,360 individual pixels.
Extremely-High Standard (ES)	Represents the benchmark for excellence in Sony HiFi, designed and built to exacting quality standards using the best materials and technology available to deliver an uncompromising audio experience.
EZ Timer	Drastically simplifies setup of programmed recording by reducing it to three eazy dial-in steps: Date, Start time, and Stop time.

F

FireWire	See IEEE 1394.
Focal Length	The distance between the optical centre of a lens and the image plane). The focal length is measured in millimetres and determines both the magnification and the

	angle of view of a lens.
Frame Recording	Captures video, a single frame at a time. Useful in the filming of "stop motion" animation.
Frames Per Second (FPS)	A measure of the rate at which pictures are shown for a motion video image.
Frequency Modulation (FM)	The radio band from 87.5MHz to 108.0MHz in Australia, with 0.2MHz intervals.

G

Game Sync Mixing	Mixes game sound input with your favourite music tracks for a more enjoyable gaming experience.
G-Code	G-Code numbers appear in TV guides and newspaper television pages. Entering this number into compatible recorders greatly simplifies record programming.
Global System for Mobile Communications (GSM)	A standard for digital mobile communication and is the world's most widespread standard used in Europe, Africa, Middle East, parts of the USA, Australia and Asia. Upon its creation, GSM, an open, digital standard was intended to make possible a range of new services, features and applications which could not be achieved with analog systems.
G-Protection	A buffer memory mechanism that prevents its portable audio equipment from skipping under most conditions. The technology recovers laser position 10 times faster than previous designs; so it can withstand the impact of jogging (and other sports) at the rate of 8G impacts, 3 times per second.
Graphical User Interface (GUI)	An interface that displays graphics on a television screen or monitor to simplify operation of a device.
Groove	Adds extra dynamism and bass to the music. V-Groove: Designed for realistic sound reproduction, V-Groove delivers impressive "in-concert" ambience as well as putting you right in the thick of any movie. Thanks to its unique low frequency (50-100Hz) response, loudness and volume enhancement, it is versatile enough to handle the demands of high-fidelity sound as well as the power needed for delivering a convincing soundtrack.

H

Hertz (Hz)	The unit measurement of audio frequency based on cycles per second, named after German physicist, Heinrich Rudolph (1857-1894). One Hz means a signal has one cycle per second.
High Definition Television (HDTV)	The generally agreed upon definition of HDTV is approximately twice the vertical and horizontal picture resolution of Standard Definition TV. HDTV has a screen ratio of 16:9, compared to SDTV's 4:3 ratio. HDTV offers reduced motion artifacts (such as ghosting or dot crawl), and can offer 5.1 independent channels of CD-quality stereo surround sound. • 576p: High Definition TV signal - 576 lines, progressive scan, 16:9 aspect ratio. • 720p: High Definition TV signal - 720 lines, progressive scan, 16:9 aspect ratio. • 1080i: High Definition TV signal - 1080 lines, interlace scan, 16:9 aspect ratio.
High Oriented Polyolefene (HOP)	A very lightweight, rigid speaker cone material which gives superb bass and mid-range sound even when being driven at maximum volume.
High Pass Filter (HPF)	A network of elements used to attenuate all frequencies below a pre-determined

	frequency. Frequencies above the cutoff are passed without effect.
Hole Accumulation Diode (HAD)	A CCD sensor with improved performance in spectral response, vertical smear, and sensitivity. The HAD sensor also introduced electronic shuttering capability to IT type sensors. • Advanced HAD: Provides brilliant results even in low-light situations due to its greater luminance sensitivity and its wider dynamic range which drastically improves the signal to noise ratio. This advantage is especially obvious for natural evening scenes or indoor events. • Hyper HAD: A derivative of the HAD sensor that incorporates On Chip Lensing (OCL) and the use of microscopic lenses mounted over each sensing pixel. Hyper HAD sensors with OCL have no perceptible smear and nearly doubled sensitivity.

I

i.LINK	See IEEE 1394.
ID3	Information stored at the end of an MP3 file. The tag can contain information about the Title/Song name, Artist, Album, Year, Comment, Genre and Track.
IEEE 1394	A very fast data transfer standard, which can be used to support up 63 external devices from a single port. It supports isochronous data — delivering data at a guaranteed rate which makes it ideal for devices that need to transfer high levels of data in real-time, such as video devices. Also known as FireWire, i.LINK or Lynx. • IEEE 1394a: Supports data rates of up to 400Mbps • IEEE 1394b: Supports data rates of up to 800Mbps
IEEE 802.11	The standard for wireless Local Area Networks. • 802.11a: 54Mbps, 5GHz band • 802.11b: 11Mbps, 2.4GHz band • 802.11g: 54Mbps, 2.4GHz band
InfoLITHIUM	Battery technology that displays remaining charge and precise remaining recording time in minutes on the viewfinder or LCD screen.
Integrated Circuit (IC)	A complex set of electronic components and their interconnections that are etched or imprinted on a chip.
Interlace Scan	The means by which traditional video creates images on screen. Interlaced scanning breaks down a single frame of video into 2 fields, one containing the odd numbered lines, the other containing the even. These 2 fields are then alternately broadcast/shown to maintain high picture quality with limted bandwidth.
Intermediate Frequency (IF)	A frequency to which a carrier frequency is shifted as an intermediate step in transmission or reception.
Interval Recording	Capturing a series of images/frames at preset intervals. Also known as Time Lapse. • Interval Recording: Captures 3 frames at preset intervals. • Smooth Interval Recording: Captures 1 frame at preset intervals.
ISO-13406-2	The International Standards Organisation ergonomic requirements for flat panel displays

J

Joint Photographic Experts Group (JPEG)	JPEG compresses graphics of photographic color depth better than other file formats like GIF, and it retains a high degree of color fidelity. This makes JPEG files smaller and quicker to download. You can choose how much to compress a JPEG file, but since it is a lossy format, the smaller you compress the file, the more color information will be lost.

K

Keystone Correction	Keystone is a distortion of the image caused by projecting at the wrong vertical angle. Digital keystone correction produces an inverse effect that cancels this distortion.

L

Letterbox	Converts widescreen content into 4:3 content by placing black bars at the top and bottom of the picture.
Light Emitting Diode (LED)	A diode is a semiconductor device through which current can go in only one direction. As a side effect, light-emitting diodes produce either visible or infrared light and require very little power.
Liquid Crystal Display (LCD)	A two-dimensional array of small crystals that are normally opaque, but become transparent when voltage is applied to them. LCDs are often back-lit for viewing in a dark room.
Lithium-Ion (Li-Ion)	A type of a battery composed of Lithium, the lightest metal and the metal that has the highest electrochemical potential. Because of its lightness and high energy density, Lithium-Ion batteries are ideal for portable devices, such as phones and notebook computers. In addition, Lithium-Ion batteries have no memory effect and do not use poisonous metals, such as lead, mercury or cadmium.
Local Application Control Bus System (LANC)	The protocol defined by Sony for enabling external control of video devices and accessing status information from the device. Also knowns as Control-L.
Long Play (LP)	Doubles VHS recording time of PAL signals.
Long Wave (LW)	The radio band from 153KHz to 279KHz, used for high power wide area radio broadcasting.
Low Frequency Effects (LFE)	Strictly low frequency information (20Hz to 120Hz, with 115 dB of dynamic range) that's added to the soundtrack for extra effect. This track does not inherently contain all the bass of the soundtrack.
Low Pass Filter (LPF)	A network of elements used to attenuate all frequencies above a pre-determined frequency. Frequencies below the cutoff are passed without effect.

M

MagicGate (MG)	A copyright protection technology for MagicGate Memory Stick and compliant products. Authentication ensures that protected content is transferred only between compliant devices and MagicGate Memory Stick, and that protected content is recorded and transferred in an encrypted format to prevent unauthorised copying or playback.
Medium Wave (MW)	The radio band from 530kHz to 1710kHz, with 9kHz intervals. Also known as the AM band.
Mega Bass	Deepens and enriches audio bass output to match your taste and the type of music being played. In addition, sound boost is controlled in accordance with the sound input level, thus delivering even more powerful sound with less residual noise

Megapixel	One million pixels. Digital cameras capture images with a sensor, comprised of an array of light-sensing pixels (picture elements). A camera's resolution is simply the total number of pixels packed onto the CCD.
Memory Stick	Developed by Sony, Memory Stick is a transportable, digital data storage technology. For more information refer to www.memorystick.org. • Memory Stick: Full size (21.5 x 50.0 x 2.8mm), capacities up to 128MB • Memory Stick Duo: Small size (20.0 x 31.0 x 1.6mm), capacities up to 128MB • Memory Stick PRO: Full size (21.5 x 50.0 x 2.8mm), capacities up to 2GB • Memory Stick PRO Duo: Small size (20.0 x 31.0 x 1.6mm), capacities up to 1GB • Memory Stick Select: Full size (21.5 x 50.0 x 2.8mm), capacities up to 256MB (as 2 x 128MB)
MICROMV	Provides up to 60 minutes of high-quality, MPEG-2 digital video footage and adds a 64-kb memory chip. The memory chip allows for a multi-search function that lets users access different sections of the tape as they would a DVD by creating thumbnail images of all of the recorded scenes on the tape.
MiniDisc (MD)	Magnetic digital disc storage that most commonly encompasses up to 80 minutes of ATRAC audio, but can also be used for video, and computer data. • MDLP: Higher audio compression technology to store up to 320 minutes on a single MD. • Net MD: Transfer music to MD at up to 32x speed with a USB connection.
MiniDV	The miniature version of the DV format and is used in many consumer camcorders. Provides up to 90 minutes of high-quality, DV video footage.
Motion Picture Experts Group (MPEG)	A standard for video and audio compression. • MPEG-1: Video compression up to 100:1, depending on image sequence type and desired quality. VHS-quality playback is expected from this level of compression. • MPEG-1 Audio Layer 3 (MP3): Audio compression up to 20:1, depending on desired quality. Though inferior to ATRAC compression, MP3 has become the de-facto standard for audio transfer over the internet. • MPEG-2: Video compression up to 40:1, depending on image sequence type and desired quality. DVD Video and Digital TV use MPEG-2. • MPEG-4: Multimedia compression designed for computer and Internet applications.
MPEG-1 Audio Layer 3 (MP3)	See Motion Picture Experts Group (MPEG).
MPEG Movie	MPEG Movie captures real-time video, giving you the power of a video camcorder right in your hands. Using MPEG-1 compression, your movies can be played back on virtually any computer. • MPEG Movie: 160x112 pixel, maximum 15 second recording. • MPEG Movie AD: 352x288, maximum 45 second recording. • MPEG Movie AX: 352x288, continuous recording. • MPEG Movie EX: 160x112 pixel, continuous recording. • MPEG Movie HQ: 320x240 pixel, maximum 15 seconds recording. • MPEG Movie HQX: 320x240 pixel, continuous recording. • MPEG Movie VX: 640x480, continuous recording. • MPEG Movie VX FINE: 640x480, high frame rate continuous recording.
MPX	Found in analog cassette decks, it removes non-musical high-frequency noise from tapes during recording and eliminates interaction with the bias frequency.

Multi-Session	A feature of many recordable CD drives and discs that enables you to add data to a CD-ROM on different occasions. This is an improvement over older CD-Rs, which required you to burn all your data onto the disc at once.

N

National Transmission Standards Committee (NTSC)	Analog video standard that delivers 525 lines at 60 fields (half-frames interlaced) per second, and is the official standard for video in North America; and parts of South America and Asia. • NTSC 3.58: The original NTSC standard. • NTSC 4.43: A variation of NTSC where the signal is encoded using the PAL subcarrier frequency and chroma modulation. Also known as PAL60.
NICAM Stereo	NICAM is a digital stereo compression system developed by BBC engineers that has proven to be extremely rugged, providing high quality stereo sound even when the signal is weak.
NightShot	Take monochrome pictures in low-light and no-light situations. With the flip of a switch, the infrared NightShot mode is activated, which defeats the flash and an infrared picture is captured with invisible, infra-red light. NightShot makes it possible to take pictures or MPEG movies of sleeping children and nocturnal wildlife in a way that is impossible with all other cameras.
Noise Reduction (NR)	The process of reducing the imperfections in analog signal to deliver a purer video or audio experience.

O

Ohm	The relationship between voltage (V), electric current (I) and resistance (R), named for German physicist Georg Simon Ohm (1789 to 1854).
On Screen Display (OSD)	Provides clearer menu functions by using a display to view the menu, while the controls are on the remote control or the control unit.
Optical Digital	An optical digital line allows you to transfer sound in lossless, digital quality.
Oxygen Free Copper (OFC)	Improves signal transmission and conduction.

P

Packet Writing	Packet writing is a technology that enables the writing of data to a CD-R incrementally, in multiple small blocks of data, rather than in a single block (as in disk-at-once recording), or in blocks defined by tracks (as in track-at-once recording), the other two common methods. Packet writing software makes it possible for the user to save data to a CD-R or CD-RW in the same way as it would be saved to the hard drive or a floppy.
Pan and Scan	Converts widescreen content into 4:3 content by selectively zooming and cropping portions of the widescreen picture. Whilst completely filling a 4:3 aspect ratio screen, 25% to 40% of the widescreen content is lost.
Peak Music Power Output (PMPO)	A method of rating the power output of speakers or amplifiers which works by calculation of power peaks.
Personal Computer Memory Card International Association (PCMCIA)	An organization consisting of some 500 companies that has developed a standard for small, credit card-sized devices, called PC Cards. Originally designed for adding memory to portable computers, the PCMCIA standard has been expanded several times and is now suitable for many types of

	devices. There are three types of PCMCIA cards: • Type I cards: Up to 3.3 mm thick, and are used primarily for adding additional ROM or RAM to a computer. • Type II cards: Up to 5.5 mm thick. These cards are often used for modem and wireless cards. • Type III cards: Up to 10.5 mm thick, which is sufficiently large for portable disk drives.
Phase Alternation by Line (PAL)	Analog video standard that delivers 625 lines at 50 fields (half-frames, interlaced) per second, and is the official standard for video in Australia; as well as most of Europe, Oceania, South America, Africa, and Asia.
Phase-Locked Loop (PLL)	An electronic circuit employed within a radio receiver which precisely tunes it to a station frequency and rejects interference which might otherwise hinder this operation. The synthesiser which tunes the radio uses a small quartz crystal to generate a stable reference frequency.
Picture In Picture (PIP)	Displays a small picture from another video source, over one corner of the main picture.
Poly-Ether Imide (PEI)	A polymer film that has ideal sound propagation speed characteristics for use as a tweeter in 2-way speakers; and as a midrange in 3-way speakers.
PowerBurn	Advanced buffer under-run technology that also continues to monitor both data stream and media to optimise disc creation.
Precision Drive	Delivers clear DVD playback. Utilising two separate reading heads (or pickup) to read DVD and CD recordings, playback accuracy is superb without a complicated switching mechanism. It compensates for minor imperfections like the warping of discs, minor shakes and rattles, making perfect playback from imperfect conditions possible.
Progressive Scan	An alternate means to interlaced video used to create images on screen. Progressive scanning reproduces an entire video frame in a single pass, from top to bottom thereby reducing flicker, improving contrast and producing a more film-like result.
Pulse Code Modulation (PCM)	An uncompressed, digitally coded representation of an analog signal. The waveform is sampled at regular intervals and a series of pulses in coded form (usually quantized) are generated to represent the amplitude.

Q

Quality Standard (QS)	Borrowing heavily from the Extremely-High Standard (ES) technology base, QS components are notable for their rigid construction,use of high quality materials and finishes, and innovative componentry whilst still representing outstanding value for money.

R

Radio Data Service (RDS)	A digital data system that transmits inaudible encoded information together with FM signals. RDS makes tuning simpler because it can display the name of a station transmitting an RDS signal, and it will find the strongest signal for this station automatically. • Program Service (PS): The station name, up to 8 characters. • Traffic Announcement (TA): Allows the radio to search for travel information and switch to the tuned station automatically during a traffic announcement. • Alternative Frequency (AF): Allows the automatic selection of stronger signals where more than one exists for the same station.

	• Enhanced Other Network (EON): This service allows automatic switching to another station for the duration of a traffic announcement; this switching is only possible within the same network.
Radio Frequency (RF)	Any frequency within the electromagnetic spectrum associated with radio wave propagation. When an RF current is supplied to an antenna, an electromagnetic field is created that then is able to propagate through space. Many wireless technologies are based on RF field propagation.
Random Access Memory (RAM)	Memory hardware that can be used by programs to perform necessary tasks while the computer is on; an integrated circuit memory chip allows information to be stored or accessed in any order and all storage locations are equally accessible.
Raw	An image capture setting that records the CCD image sensor's raw data (without interpolation or electronic conversions applied) that allows the user to control and change recording parameters post shot including colour depth, ISO setting, white balance, saturation, colour bit depth and so on.
Read-only Memory (ROM)	Memory hardware that allows fast access to permanently stored data but prevents addition to or modification of the data.
Real Digital System	A technology where all signals are processed digitally, regardless of source: minimising loss of signal degradation and resulting in highly accurate image reproduction.
Recommended Standard 232 (RS232)	A standard for serial communication which defines the voltages that are used and the pattern of voltage changes. It is electrically unbalanced, meaning that the voltage change on one wire is not balanced by an equal and opposite change on another. This makes the scheme simple to implement, but less robust than other standards.
Root Mean Square (RMS)	A method of rating the power output of speakers or amplifiers. In contrast to Peak Music Power Output, Root Mean Square works through a mean averaging of the components output. This rating provides a far more accurate impression of the actual performance

S

Scale Factor Edit (SFE)	Enhance your music compilation even after the recording is completed. Record level control allows changes to the recorded volume, meaning that difference in volume between different songs can be easily corrected. Record fade in/out feature, on the other hand, allows music fading transition to be performed in 0.1 second steps, up to 15 seconds in length.
Screen Depth Matching	This feature works alongside Cinema Studio Reverberation to "relocate" the front speakers behind the screen, as they would be in a real cinema. Tthe result is a larger listening space and a truer realisation of the theatre sound experience.
Séquentiel Couleur Avec Mémoire (SECAM)	Analog video standard that delivers 625 lines at 50 fields (half-frames, interlaced) per second. Once common in Europe and Africa, many countries that formerly adopted SECAM have now switched to PAL.
Shock Resistant Memory (SRM)	See ESP.
Short Wave (SW)	The collection of radio bands ranging from 2300kHz through to 27.41MHz.
Side Shot	Image compensation (keystone correction) technology that allows the projector to be positioned off-centre in both vertical and horizontal planes.

Signal to Noise Ratio (S/N Ratio or SNR)	The ratio of the desired signal level to the level of unwanted noise.
S-Master	A fully digital amplifier that enjoys excellent efficiency in processing sound signals as well as minimising any loss during idling periods. It is also extremely frugal in energy consumption due to the absence of analog switches. The design and packaging of amplifiers can be further refined to produce high quality, high power units that reside within an even smaller chassis.
SSIR-EX	Short signal paths between circuit sections reduce noise and improve gain, ensuring a stable and reliable tuner performance with excellent audio quality. High-quality circuit elements improve inter modulation distortion and sensitivity.
SSIR-EXA	Automatically controls the intermediate frequency bandwidth in the FM band, reducing sound interference.
Stamina	Drawing from Sony's wealth of experience in battery technology, Stamina technology delivers longer operating times.
Standard Definition Television (SDTV)	• 480i: Standard Definition NTSC signal - 480 lines, interlace scan with 4:3 aspect ratio. • 576i: Standard Definition PAL signal - 576 lines, interlace scan with 4:3 aspect ratio.
Standard Play (SP)	The standard VHS recording time of PAL or NTSC signals.
SteadyShot	Reduces blur ans shake caused by unsteady hand movements during recording.
Subwoofer	A type of speaker used to enhance bass response in an audio or home theatre system. It contains a woofer (or woofers) in an independent enclosure. Subwoofers are generally intended to cover the range below 200Hz and can extend down to 20Hz or below. They lend weight to the overall sound and presentation of a system by providing extended bass response and low-frequency impact which can be felt physically, but is inaudible to the human ear, especially on action movie soundtracks. Due to non-directional nature of this bass sound, a subwoofer can be positioned almost anywhere in a normal room.
Super Audio CD (SACD)	An alternative to the DVD-Audio format that is designed to play on audio CD players and Super Audio CD players by comprising two layers: one with CD-Audio the other with high quality audio. The audio encoding used is Direct Stream Digital (DSD).
Super Extended Video Graphics Array (SXGA)	An SXGA display has 1280 horizontal pixels by 1024 vertical pixels, giving it a total display resolution of 1,310,720 individual pixels.
Super Pro Optic System	An innovative system for rear projection TVs, adopting the most superior CRT and optical Technologies available do deliver excellent picture quality.
Super Video Graphics Array (SVGA)	An SVGA display has 800 horizontal pixels by 600 vertical pixels, giving it a total display resolution of 480,000 individual pixels.
S-Video	Separated video. Offers improved picture quality over composite video signals by separating the picture signal into colour and brightness information.
Syndicat francais des Constructeurs d'Appareils Radio et Television (SCART)	An audio-visual connection type, typically used to connect a television and other video components primarily used in Europe. The SCART cable can have up to 21 active pins and can carry audio, video and control signals. It was developed by the French company Peritel.

T

Tagged Image File Format (TIFF)	One of the most widely supported file formats for storing lossless, bit-mapped images on personal computers.
Teletext	A group of text pages transmitted with the normal TV signal that can be read using a TV that has a teletext function. First regular teletext transmissions were from BBC in Great Britain in the 1974.
Theatrical Aspect Ratio	The picture aspect ratio that approximates that of 70mm film.
Time Machine Recording	Memorises several seconds of unrecorded data. This function automatically adds a missed beginning e.g. of a radio program that you may have wanted to record.
Tjänstemännens Central Organization (TCO)	A standard set in 1991. It is even more stringent than MPR II, especially for alternating electric fields. Not only are the permitted field levels reduced compared with MPR II, but the measuring distance is reduced as well. • TCO'95: Includes ergonomic and ecologic requirements. • TCO'99: Further expends the ergonomic and ecologic requirements.
Total Harmonic Distortion (THD)	The amount of undesirable harmonics present in an output audio signal expressed as a precentage. The lower the percentage the better.
Track At Once (TAO)	The CD-ROM disc is created, writing a track at a time; allowing for additional data (tracks) to be added at a later time.
TruSurround SRS	A technology from SRS Laboratory that creates a broad, fully immersive sound image within the listening area that wraps around the listener's head regardless of seating position.
Tweeter	A loudspeaker driver designed to handle high frequency (treble) signals.

U

Ultra Extended Graphics Array (UXGA)	A UXGA display has 1600 horizontal pixels by 1200 vertical pixels, giving it a total display resolution of 1,920,000 individual pixels.
Universal Serial Bus (USB)	A "plug-and-play" interface between a computer and add-on devices (such as audio players, keyboards, telephones, scanners, printers etc). With USB, a new device can be added to your computer without having to turn the computer off. • USB 1.1: Data trhoughput of up to 12Mbps. • USB 2.0 (also Hi-Speed USB): Data throughput of up to 480Mbps. • USB On-The-Go: Allows data transfer between two devices without the need for a computer.
USB Streaming	Allows connection via USB terminal to a PC and broadcast live video with audio, edit images, capture still images or play back recorded video scenes.

V

Variable Attenuation Control System (VACS)	Continually monitors the balance between the current and voltage amplification stages in an amplifier, thereby reducing distortion even at high volume levels.
V-Compression (Wide Mode)	A mode that only scans the lines within the picture area when widescreen aspect ratio content is on the screen. This optimises picture quality by not utilising scan lines for the blank area at the top and bottom of the screen.

Video Graphics Array (VGA)	A VGA display has 640 horizontal pixels by 480 vertical pixels, giving it a total display resolution of 307,200 individual pixels.
Virtual Multi Dimension (VMD)	Overcomes one of the fundamental challenges in accurately representing theatre sound in a confined space. Using 3D processing technology, it creates five pairs of "virtual" surround speakers from the existing rear speakers (or if unavailable the two front speakers). "Pitched" 25 to 35 degrees overhead, these virtual speakers create sound depth and scale, delivering a more realistic, spacious surround sound experience.
Virtual Phone Technology (VPT)	See Digital Signal Processing (DSP).
Voice Operated Recording (VOR)	Voice-controlled recording on dictating machines.
Volt (V)	The standard unit of electric potential. It is defined as the amount of electrical potential between two points on a conductor carrying a current of 1 ampere while 1 watt of power is dissipated between the two points.
Volume Unit (VU)	A unit of measurement of the power of an audio signal.

W

Watt (W)	Unit of power. More watts mean more power, but how loud a system sounds also depends on speaker sensitivity and room size.
White Balance	The ability of a camera to adjust the color balance of a picture to compensate for the ambient lighting.
Wide Bit Stream (WBS)	Conventional MiniDisc playback is done with 16-bit signal processing, WBS technology increases the rate to 18-bit or higher. This results in more accurate playback of even subtle sound signals, and greatly improves the signal to noise ratio.
Wide Extended Graphics Array (WXGA)	A WXGA display has 1366 horizontal pixels by 768 vertical pixels, giving it a total display resolution of 1,049,088 individual pixels.
Widescreen Aspect Ratio	A range of picture aspect ratios that approximate that of 35/70mm film. Also known as 16:9. • Anamorphic Widescreen: Squeezing and unsqueezing the video frame. 1.78:1 is squeezed into 1.33:1 frame. On a wide screen this screen can be expanded horizontally to form the complete resolution. • Letterbox Widescreen:
Wireless Fidelity (Wi-Fi)	See IEEE 802.11.
Wireless LAN	See IEEE 802.11.
Woofer	A loudspeaker driver designed to handle low frequency (bass) signals.

Z

Zoom	To show a smaller area of a scene at a higher magnification. • Optical Zoom: Uses lens technology to achieve zoom without losing detail. • Digital Zoom: Uses video processing technology to achieve zoom but sacrifices detail. • Smart Zoom: Uses video processing technology to achieve zoom without losing detail. • Playback Zoom: Uses video processing technology to achieve zoom after an image has been recorded, but also sacrifices detail.
Zweiton Stereo	See A2 Stereo.