How to FIT CCTV

Tip No: 290

Question: What Jargon should I need to know for installing CCTV cameras? (Jargon Buster)

Answer: A bit unsure what some of those unusual terms and pesky acronyms actually mean when you come across them? Well here's a quick guide to help you....

AGC	**Automatic Gain Control** is a handy feature that automatically adjusts the Video amplitude under various lighting conditions. If the Gain is manually set too high, it can produce a noisy image in low light conditions.
AI	**Auto Iris** is a moving part of the lens that allows it to automatically open or close to vary the amount of light reaching the CCD so it can handle varying lighting conditions better without any manual adjustment. Great feature for external cameras operating in day to night conditions.
AWB	The **automatic white balance setting** controls the automatic adjustment of the light source's colour temperature, which will adjust the picture's colour to maintain the "best" image by keeping white objects white and so on.
BAUD RATE	Is the number of symbols or waves made in a transmission signal per second. Used as a setting between PTZ devices such as cameras and keypads to allow them to transmit to each other effectively. The lower the rate that can be selected the further the transmission distance without errors.
BLC	**Back Light Compensation** allows the camera to adjust the exposure of the entire image to properly expose the subject in the foreground when a bright light source is situated behind it.
CCD	**Charge Coupled Device** – the main component of a CCTV camera, this converts light energy into an electrical charge which is then converted to an electrical image.
CMOS	Works in a similar way to CCD but produces a lower quality image.
DNR	**Digital Noise Reduction** is the process of removing image noise from the video signal by applying a digital filter. A 2d filter reduces noise in low light images, a 3d filter reduces noise caused by movement giving less motion blur.

dB deciBel	A unit of measurement for the Signal-Noise ratio. The higher the value, the better & crisper the camera's picture & sound. Usually from 48 to 52 dB.
DSP	**Digital Signal Processing** allows access to additional features within a camera like WDR, BLC, RS485 (see other terms for full explanations)
DUAL VOLTAGE	Cameras with dual voltage options can accept either 24V AC or 12V DC power sources. Using 24V AC is a good option for longer cable runs as less volt drop occurs over the cable length.
F NUMBER or F Stop	Is the aperture or opening of the lens that describes the amount of light the lens lets in. The lower the number the better.
IR LED	Produces infrared illumination invisible to the human eye but visible to IR sensitive cameras.
NiteDevil	A function that allows a slower shutter speed in order to let in more light to provide higher sensitivity in low light conditions.
NTSC	The video signal standard for North America and Japan
OLPF	**Optical Low Pass Filter** removes the 'Moire' effect created by checked patterns in an image
OSD	A menu system that allows configuration of camera parameters.
PAL	The video signal standard for Europe.
PTZ	**Pan, Tilt and Zoom** – a term used for cameras that have the ability to rotate and angle itself to look at a given area. The Zoom function is from the lens of the camera zooming in and out to focus on an object.
RS485	A serial data standard in which data is sent typically down a pair of wires (Twisted Pair/CAT5) to send control commands to devices.
TVL	**TV Lines** indicate the maximum amount of individual vertical lines capable of being produced by equipment. The higher the better resolution and image quality.
VMD	**Video Motion Detection** detects changes between subsequent frames of video specifically looking for changes within defined 'Region of Interest'.
WDR	Digitally adjusts the exposure in areas of the frame to maintain optimum levels in both the dark and bright areas of an image.

This CCTV installation tip is aimed at helping you to install CCTV equipment. If you are looking for answers on "how to fit CCTV" or perhaps "how to network a DVR or NVR" or even "how to get CCTV on your mobile phone" why not check out our full range of CCTV installation tips at: **www.systemq.com**

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