

CCTV (CLOSED CIRCUIT TELEVISION)

CCTV is one of the fastest growing regions in the security industry. As the name implies CCTV (closed circuit television) is a system in which elements are directly connected but the circuit is closed. This is different from regular broadcast television where the receiver which when correctly tuned can pick up the signal from the airwaves. Direct connection in this framework includes systems connected by microwave, infrared beams, etc.

CCTV technology was first used in the 1940s to monitor the testing of V2 missiles. The first US manufacture of CCTV equipment was established in 1946 by a major manufacture of large power plant boiler systems to fill a need that was not available on the commercial market. By the 1960s, officials in the UK began installing CCTV systems in public places to monitor crowds during rallies and appearances of public figures.

In the past it was assumed that CCTV was too expensive and too complicated so there was nothing to get involved in it. Also there were concerns with regards to privacy issue. Over the years it has become far more affordable and simpler to install. This article introduces the main components that are needed to make up CCTV systems of changeable complexity.

THE BASICS OF CCTV

1. THE SCENE AND LIGHT:

The scene refers to the area that is under the observation of CCTV cameras. The scene often contains different colours, surfaces, and materials that reflect light of varying level. It is necessary to determine the minimum lightning level at both day and night time that will reach the camera lens so that proper equipment can be easily selected. The scene can be illuminated by natural or artificial light sources which include sun, moon, stars, incandescent, sodium, florescent, infrared and other man made lights. A proverb in CCTV security says that: The better the Light, the better the Picture.

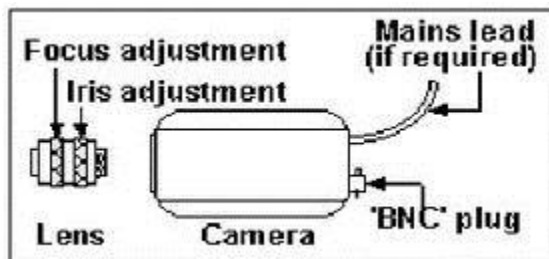
2. COLOUR:

The colour cameras require greater amount of lightning as compared to Black and White cameras. Colour produces a more natural and richer image than black and white camera and keeps the operator interest for longer periods of time. It also makes easier to detect subjects that can be any person, place or anything. While the use of colour camera is growing, black and white cameras continue to offer some distinct advantages. The Black and White cameras are better suited for extremely low light situation. This ability to capture good quality images in low light situations increases the cost of both the cameras.

3. CAMERA:

The most basic operation of cameras in CCTV is to convert the visible scene captured by the lens into an electrical signal and transmit that signal to the monitor for viewing. Apart from their special designs, they are not fitted with the lens. The lens needs to be provided separately and screwed on the front of the camera. Several considerations

should be taken for proper selection of camera. When the level of available light changes, a camera equipped with automatic iris control helps to assure consistent image quality. This automatic iris control enables the camera to open and close automatically with the amount of light passing through it. In the bright sunny atmosphere the auto iris lens camera will close to protect camera from strong light and at night it will open to allow greater amount of light to enter the camera.



Some very wide angle lenses do not have a focus ring. The 'BNC' plug is used for connecting the coaxial video cable. Line powered cameras do not have the mains cable there power is provided via the coaxial cables.

Source : <http://www.udaiportalents.com/technical-learning/cctv-closed-circuit-television>