

# **UNIT 12: AUDIO VISUAL EQUIPMENTS**

## INTRODUCTION

Hotels have a large number and variety of audio visual equipments, detectors and sensors. The actual variety and number of such equipments depend upon the type of business being carried out by a particular property. E.g. A convention hotel will have less of such equipments, while a primarily lodging hotel will have less of such equipments.

## TYPES OF AV EQUIPMENTS USED IN HOTELS

Although hotels widely differ in the types and number of AV equipments, the following are mostly included in standard hotels.

- Video Players and Recorders
- Follow Spot Lights
- Karaoke System
- Loudspeaker
- Microphone
- Overhead Projectors
- Portable Screens
- Fixed Projector Screens
- LCD/LED
- CCTV
- Desktop/Laptop Computers
- Wireless Keyboards and Mouse

## CARE AND MAINTENANCE OF AV DEVICES

Audio- Visual equipments are mostly sophisticated electronic equipments, and as such they must be handled with proper care and maintained regularly to ensure their proper functioning. Usually, the sound systems are maintained regularly to ensure their proper functioning. Usually, the sound systems are maintained by outsourcing to contract maintenance. The video units, LCD monitors, computer systems, projectors, cameras etc. usually have some kind of warranty and service contract. However, there must be some care in operating them and regular routine of cleaning them that greatly enhances the life and performance of the equipments.

### LCD/ VIDEO PROJECTORS

These projectors work with computers and have become extremely popular for making presentation on screen that were earlier done with overhead projectors (OHP) and slide projectors. Projectors are very sophisticated equipments and great care is needed in operating them. The start procedures are controlled through various control buttons on the projector and they need to be strictly followed in accordance to the instructions. They produce a lot of heat ranging from 400 to 500 degrees. To remove this heat, cooling fans are installed within which contain filters. These filters need to be cleaned or changed through regular maintenance. If not done so, any dust particles in the projector can cause visual anomalies.

Projector lens should be cleaned with isopropyl alcohol or a photographic lens cleaning solution. Apply the cleaning solution to cloth and wipe the lens. Never apply the cleaning solution to the lens directly. LCD projectors must be used at temperatures between 5 and 35 degrees Celsius. Dust should be regularly blown off from the lens by means of a blower but from a safe distance.

### Care and Maintenance of Computers and its peripherals

Computers and their peripherals are quite robust and reliable. However, casual use of different components, may lead to serious problems ranging from faulty and unreliable operations to complete stoppage of operation. A few routine care and maintenance schedule can ensure trouble free operation for a reasonable period of time. But in case of serious problems, professional help should also be taken.

## Care and Cleaning of LCD screens

Utmost care must be taken while dealing with LCD screens.

### THE DO'S

- To remove stains on the screen, properly clean the display surface by gently wiping it with a lint free cloth and glass cleaning agent.
- Avoid strong shocks and vibrations.
- Be sure to use and store LCD monitors within the specified temperature and humidity range.
- The screen should be turned off or brightness should be reduced to prevent 'burn-in', which is a permanent damage to certain pixels in the LCD due to overheating.

### THE DONT'S

- Do not place any heavy object on the laptop.
- Do not scratch, twist or hit the surface of the LCD screen.
- Do not spray cleaning liquid directly on to the screen.
- Do not let moisture accumulate.
- Never disassemble the LCD monitor, as the internal backlight assembly can retain a charge of 1000 V and may prove fatal.
- LCD screens should not be subjected to sudden temperature change.

## Care and Maintenance of Printers

The most common problems faced while using a printer are: poor print quality, streaking print, white lines through prints, no print etc. Most of these problems originate from ink drying up at the print head or nozzle and clogging them during printing operation.

- Running the printer at least once a week helps avoid these problems.
- Use the printer at least on a weekly basis with both black and white and colour text printing.
- Always use printer switch rather than the UPS or Power switch to shut down the unit.
- Refilling for colour cartridge must be done with proper ink in the proper chamber.

- It is always better to refill an inkjet cartridge before it is empty as the ink of dried up cartridges, if left for too long will clog the print head.
- Laser printers should be kept in a dust free area.

## UPS – Maintenance and Care

A UPS (Uninterruptible Power Supply) provides instant emergency power to connected equipments by supplying power from a separate source (battery) in case of a failure of the main power supply. The battery is the most important part of the UPS. A periodic maintenance program extends the life of the battery. The following steps can help establish a good maintenance program for the UPS battery. UPS – Maintenance and Care (contd.) Inspection: Periodic inspection should be carried out. Periodic measurements: of the voltage, temperature, resistance etc. should be measured to ensure that the battery is operating to its optimum.

Load testing: When the battery can no longer supply 80 % of its rated current, the aging process begins and the battery is considered for replacement. Individual cells of the battery should be monitored, so that only the weak or bad cells can be identified and scheduled for replacement.

Record Keeping: All data collected through the above maintenance program should be documented to track the performance of the battery over time.

## A Few Good Maintenance Practices for Reliable Operation of Computer Systems

Computer systems are now a part and parcel of modern organizations. Smooth and efficient functioning of the organization nowadays depend a lot on continuous and reliable functioning of the systems.

- Switch off computers only after the operating system has properly shut down the computer.
- Always use a UPS.
- Keep the operating system software and other important utility software in a secured place.
- Run scandisk and defragment the file system once a month.
- Take regular data backup.

- Keep at least 250 MB of C: drive free.
- Do not let many programs load up in the computer memory or RAM when the computer starts.
- Avoid storing files on the desktop.
- Run system file checker twice a month.
- Remove all unnecessary files and folders from 'My Documents' directory and empty 'Recycle Bin' once a month.
- Get all critical windows update.
- Scan the computer with antivirus at least once a week.
- Install firewall protection for Internet access
- Clean computer and its accessories on regular basis.

## Sensors and Detectors

The hotel industry, because of its very special nature of business, requires a host of sensors and detectors for reliable, efficient and safe functioning. A number of them are listed below:

Different Types of Detectors

Smoke Detectors

Heat Detectors

Occupancy Detectors

CCTV

Gas leak Detectors

Photo sensors

Flame Detectors

pH detectors

Gas detectors

Flame Monitoring System

Carbon monoxide level detector

Smoke Detector - A smoke detector is a device that senses smoke, typically as an indicator of fire. Commercial security devices issue a signal to a fire alarm control panel as part of a fire alarm system.

Heat Detector – A heat detector is a device that detects sudden change in temperature in the place where it is installed. If the rise in temperature is above a predetermined level it issues a signal to the water sprinkler system.

Occupancy detector – Occupancy or motion detectors are devices that turn lights and other equipments on or off in response to the presence or absence of people in a specific area in the field view on the sensor.

pH Detector – They are used to monitor the pH value of water in certain areas of the hotel like, Water Treatment Plant, Boiler, Swimming Pool, Sewage Treatment Plant.

Gas Leak Detectors - They are used to detect LPG leaks from Gas banks.

Gas Detectors – They are used to detect the presence of various gases within an area that might be harmful. They are used to detect combustible, toxic and CO<sub>2</sub> gases.

Flame Detector – A flame detector uses optical sensors to detect flames.

Carbon Monoxide Level Detector – It detects the presence of carbon monoxide and sets in some kind of alarm so that the situation can be controlled by measures such as improved ventilation of the area and/or evacuation of occupants from the affected area.

Photo Sensors - These sensors are used to detect the amount of daylight available and accordingly vary the light output of illumination bulb and tubes and also switches on and off the lights in the premises in a property. It helps in energy conservation and reducing the power consumption bill of the property.

Close-circuit TV or CCTV

CCTV is an arrangement that uses electronic eyes of video cameras to transmit a signal related to human activities in some specific place to some storage space or to a limited set of cameras. They are the most commonly used type of surveillance equipments.

## Objectives of Installing CCTV in Hotels

- To protect customers
- To protect assets from pilferage and theft, such as in a liquor storage room.
- To prevent loss by way of legal compensation by identifying false claims by customers.
- To help get insurance claims in case of property damage due to fire etc.
- To gain control over activities of employees.
- To monitor various activities in the hotel.
- To identify offenders.