

# Village Hall Audio-Visual System

## User Guide

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### OVERVIEW

The Village Hall Audio-Visual (AV) System is able to provide an output to a projector; a sound system; and a hearing loop. It can input data from many sources as follows:

- DVD (standard or Blu-Ray), audio and video
- CD, audio only
- USB Stick, audio and video
- Freeview Television, audio and video
- Various Apps including the I-Player and ITVX, audio and video
- Microphones, audio only
- Laptop via HDMI, audio and video
- Bluetooth, audio only

The projector is a high-quality device, capable of displaying video in high definition if a suitable source is available. The sound system is a 5.1 system with a sub-woofer. This means that there are 5 permanently fixed loudspeakers in the hall (two at the front, two at the back with one centrally located over the screen). A sub-woofer is available for any event requiring the most realistic sound.

The table below indicates the type of output available for the inputs listed above.

Input	Audio Output	Video Output
DVD (Blu-Ray)	5.1 surround sound, stereo or mono depending on the disc content	High Definition or Standard definition depending on the disc content
DVD (Standard)	Stereo or mono	Standard Definition
CD	Stereo or mono	-none-
USB	5.1 surround, stereo or mono depending on the files	High or Standard Definition depending on the files
Freeview TV	5.1 surround, stereo or mono depending on the channel	High or Standard Definition depending on channel
Apps (I-Player, ITVX etc)	5.1 surround, stereo or mono depending on the programme	High or Standard Definition depending on the programme
Microphones	Mono only	-none-
Laptop	5.1 surround, stereo or mono depending on the programme or files	High or Standard Definition depending on the programme or files
Bluetooth	Stereo or mono depending on the source	-none-

The sub-woofer can be added for any input, but this will only have a noticeable effect on a high-quality sound input. The Hearing Loop can be used with any of the inputs.

The rows in the table above are largely mutually exclusive meaning that only one on input can be used at a time. The exceptions are the Laptop and the Microphones which can be used individually, or together.

## INTRODUCTION

The following sections detail the instructions for operation of the A-V system according to the inputs and output required by the user. These instructions refer to equipment in the Audio-Visual Equipment Rack. A photo of this rack is shown in Figure 3 on page 3, and clearly marks the location of all the power on/off buttons. Note that access to the rack requires a key which is stored in the safe located behind the curtain on the right-hand side (when viewed from the main hall) of the stage. Contact a member of the Village Hall Management Committee, or the Film Society for access to the safe.

When switched-on the AV System will usually revert to the previous state, and if the media is still available this will usually be activated. The instructions given below assume that the AV system is being switched on from a previous unknown state. Therefore, in some cases, the controls may need no or minimal adjustment.

## Remote Controls

Three remote control units are required for full operation of the Audio-Visual System:

- The **Projector Remote Control** is normally only used to turn the projector on or off.
- The **Pioneer Remote Control** controls the inputs and outputs of the AV System, largely using a set of Preset Modes. It also controls the overall volume of the Sound System.
- The **Panasonic Player Remote Control** allows the selection of the type of audio and video to be displayed from one of the following inputs:
  - Blu-Ray DVD Disc
  - Standard DVD Disc
  - Audio CD
  - Audio and/or Video files on a USB Memory Stick
  - Freeview Television



The remote controls are stored in the Storage Drawer in the A-V equipment rack.

Please note that when using the remote controls and standing in the main hall, the Panasonic Player and Pioneer remote controls must have a line-of-sight view of the equipment rack. This means that neither the curtain, nor the projector screen should block the view, or that the controls should be used behind the curtain and screen.

## Location of Equipment

The location of the equipment associated with the Audio-Visual system is shown in Figure 1.

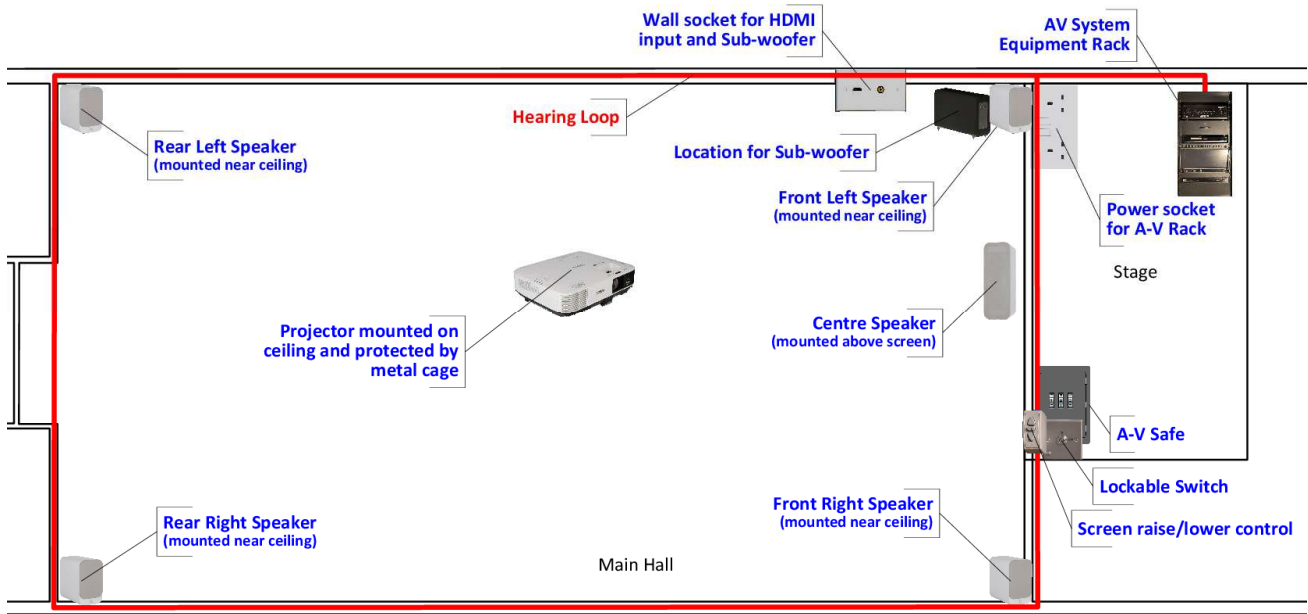


Figure 1: Audio-Visual System Physical Layout

## Projector & Screen

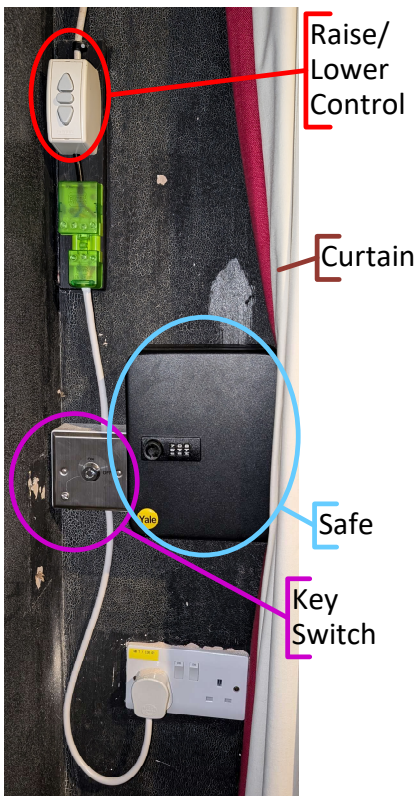


Figure 2: Safe and Screen Controls

Keys for the Audio-Visual rack and screen controls are stored in the safe located behind the curtain on the right-hand side (when viewed from the main hall) of the stage as shown in Figure 2. Contact a member of the Village Hall Management Committee, or the Film Society for access to the safe.

Before the projector can be used, it is necessary to lower the screen. This requires a key (stored in the safe) which should be placed in the Key Switch control. Once activated, use the Raise/Lower control to raise or lower the screen as required.

The projector is turned on and off using the remote control. Press the blue power button on the remote control to turn the projector on, a faint beep will be heard, and the projector fan will start up. Note though that an image may take several seconds to appear. The projector is turned off by pressing the blue power button on the remote control twice. The projector will sound two faint beeps and then shutdown, but the blue standby LED will remain lit.

It is not usually necessary to use any other features on the projector remote control.



## Audio Visual Rack

The Audio-Visual (AV) System Rack is shown in Figure 3. It consists of a series of units which are labelled in the diagram and referred to in the remainder of this document. Access to the rack requires a key which is stored in the safe behind the stage curtain in the opposite corner to the rack. Contact a member of the Village Hall Management Committee, or the Film Society for access.

Power for the rack is taken from the socket near the curtain (see Figure 1), and this should be turned on before use.

Note that the ambient light level around the rack is usually poor and therefore the top of the rack contains additional lighting on stalks which can be folded outward to provide illumination of the units in the rack. The Light Control is ringed in green in Figure 3 and operates as a dimmer. Turn fully clockwise for maximum brightness and fully anticlockwise to turn off.

When lighting is no longer required, lights should be turned off and the stalks folded back into the rack area. This will then allow the Perspex door to close.

Figure 3 also shows the location of the power on/off switches (ringed in blue) for each of the units. The figure also shows the Master Volume Control (ringed in red) and the Preset Control (ringed in yellow). Note that when a preset is selected either on the Pioneer AV Amplifier, or on the corresponding remote control, the volume level will be reset and may have to be re-adjusted as required.

## Sound System

In order to produce sound, it is necessary to turn on the Pioneer AV Amplifier using the power switch shown in the Rack Configuration Diagram below. If the Hearing Loop, Microphones or Laptop/HDMI are to be used, it is also necessary to turn on the power to the Audio Mixer.

If the sub-woofer is to be used, it should be positioned in the corner near the HDMI/Sub-woofer wall-plate near the stage. The red lead from the sub-woofer should be plugged into the sub-woofer socket on the wall-plate and the mains lead should be plugged into the nearby mains socket. Always turn the sub-woofer on AFTER the Pioneer AV Amplifier has been turned on.

The main master volume control is clearly labelled, on the right of the Pioneer AV Amplifier. The volume can also be adjusted on the Pioneer Remote Control (ringed in yellow in the adjacent figure).

## Hearing Loop

The Village Hall is fitted with a hearing loop which can be used by appropriate hearing aids to pick sound electrically rather than through the speakers. The hearing loop can be used with any input producing sound and is activated simply by turning on the Hearing Loop Amplifier, and the Audio Mixer.

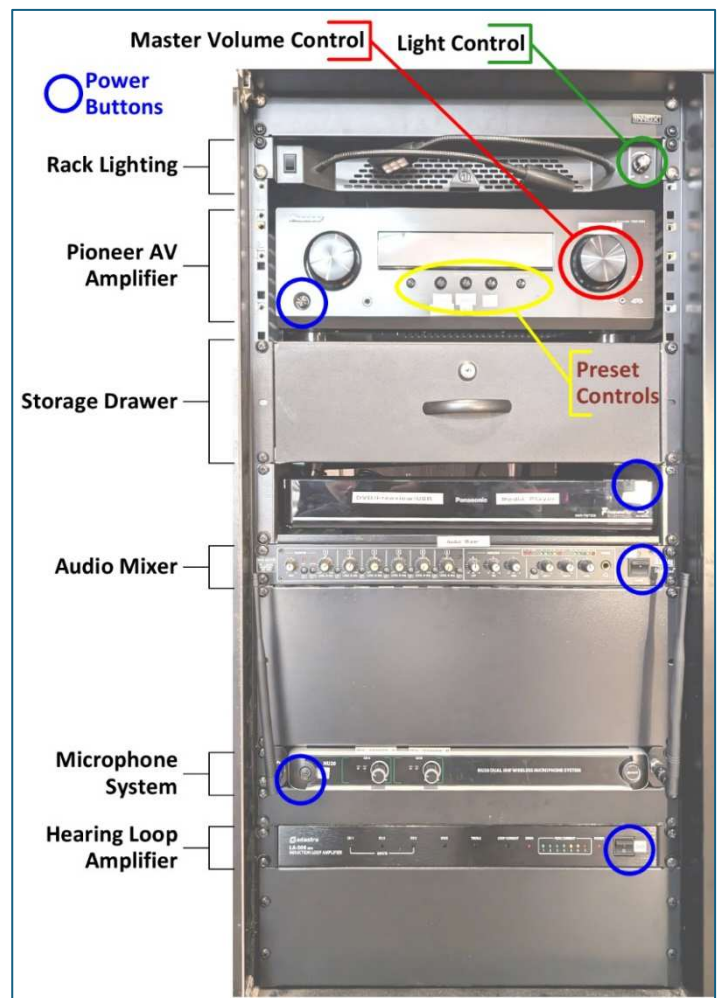


Figure 3: Audio-Visual System Equipment Rack



## TO PLAY A DVD OR CD

Turn on the Pioneer AV Amplifier, the Panasonic Player (which will display 'Hello' on the front panel) and the Projector. On the Pioneer AV Amplifier, or the corresponding remote control press the Preset 1 button (ringed in red in the adjacent figure). This selects the Panasonic Player as the system input.

On the Panasonic Player, press the Open/Close button adjacent to the power button to open the DVD/CD tray and insert the required disc. Close the tray using the Open/Close button again.

After a few seconds, the DVD or CD should then start to play automatically. To control the playback, use the appropriate buttons (ringed in pink in the adjacent figure) together with the cursor and OK buttons (ringed in yellow) on the Panasonic Player Remote Control. Use the Pioneer Remote Control or the large circular control on the Pioneer AV Amplifier to adjust the volume. A good starting point for the volume level is -20dB as displayed on the Pioneer AV display.



## TO PLAY FILES ON A USB STICK

After turning on the AV Amplifier and the Projector, select Preset 1 on either the Pioneer Remote Control or the Pioneer AV Amplifier Unit. Turn on the Panasonic Player using the power button on top of the unit, on the right-hand side. The Panasonic Player will display 'Hello' on the front panel. Open the front flap of the Panasonic Player by pulling forward from the top. The flap is hinged at the bottom of the unit. Insert the required USB stick.



Figure 4: Function Menu

The following actions are best performed when standing in front of the screen, using the Panasonic Player Remote Control.

Press the 'Function Menu' button on the Panasonic Player Remote control (ringed in green in the adjacent figure), and after a few seconds the Video Function Menu should then be displayed as shown in Figure 4.

Using the cursor button on the Panasonic Player



Remote control, select the Media option and press 'OK'.

Select the USB option and press OK. Choose the option you require from the USB Device Menu (Figure 5) and the available files on the USB stick should then be displayed. Select the file required and press OK. If the selected file is of compatible format, it will be played.

If the file contains audio, then the volume can be adjusted using the 'Vol' control on the Pioneer Remote Control, or the large control on the right of the Pioneer AV Amplifier unit. If the file does not contain any video or imagery, the Projector should be turned off, by pressing the blue button on the Project Remote Control twice.



Figure 5: USB Device Menu



## TO USE MICROPHONE(S)

The AV System includes two channels (A & B) for Microphones. Although 3 microphones are available, only one can be used on channel A and one on channel B. Note that if the two microphones are operated on the same channel, one or both may not operate.

The microphones available are:

- A handheld microphone operating on Channel B with a power switch on the shaft
- A lapel microphone with battery pack operating on Channel A with a power switch on the top of the battery pack
- A lapel microphone with battery pack operating on Channel B with a power switch on the top of the battery pack

The microphones are located in the storage drawer (the unit with a horizontal handle) in the equipment rack. All the microphones use batteries, so it is important that after use, they are turned off.

The microphones can be used on their own, or in conjunction with a laptop or other HDMI input.

Turn on the Pioneer AV Amplifier, the Audio Mixer, the Microphone Amplifier and if required, the Projector. Select Preset 2 on either the Pioneer Remote Control (ringed in red in the figure) or the Pioneer AV Amplifier Unit. Make sure that the Panasonic Player is turned off, otherwise sound from another source may interfere with sound from the microphones. Each microphone has an on/off button, so turn the required microphone(s) to the on position. Volume can be adjusted using the 'Vol' control on the Pioneer Remote Control (ringed in yellow in the figure), or the large control on the right of the Pioneer AV Amplifier unit. If two microphones are being used and different volume levels are required for each microphone, the channel volume can be adjusted on the Microphone Amplifier Unit.

## TO USE BLUETOOTH

It is possible for any Bluetooth-enable device such as a mobile phone to use the AV System. Make sure that the Panasonic Player is turned off, otherwise sound from another source may interfere with sound from the Bluetooth source. Turn on the Pioneer AV Amplifier and the Audio Mixer. Select Preset 3 on either the Pioneer Remote Control (ringed in red in the figure) or the Pioneer AV Amplifier Unit.

The Pioneer AV Amplifier will then enter pairing mode, allowing the Bluetooth-enabled device to connect to it. Playing media through the AV System is then under the control of the Bluetooth-enabled device. Volume can be adjusted using the 'Vol' control on the Pioneer Remote Control (ringed in yellow in the figure), or the large control on the right of the Pioneer AV Amplifier unit.

Note that it is not possible to display video using Bluetooth.



## SWITCHING OFF

Switching off should be performed in the following sequence:

1. Turn off any microphones and replace in the Storage Drawer.
2. Remove any discs or USB memory sticks from the Panasonic Player.
3. Switch off the sub-woofer if used.
4. Switch off the projector by pressing the blue button on the Projector Remote Control twice. The projector should sound 2 beeps and shut down.
5. Switch off all the units in the AV System Equipment Rack.
6. Switch off the wall socket providing power to the rack (see Figure 1).
7. If used, raise the projector screen, lock and remove the key. Return the key to the safe.
8. Return all remote controls to the Storage Drawer.
9. Turn off the rack lighting (if used) and ensure that the light stalks are folded in.
10. Close the Perspex AV Rack door and re-lock. Return the key to the safe.
11. Close and lock the safe.

## SYSTEM SCHEMATIC

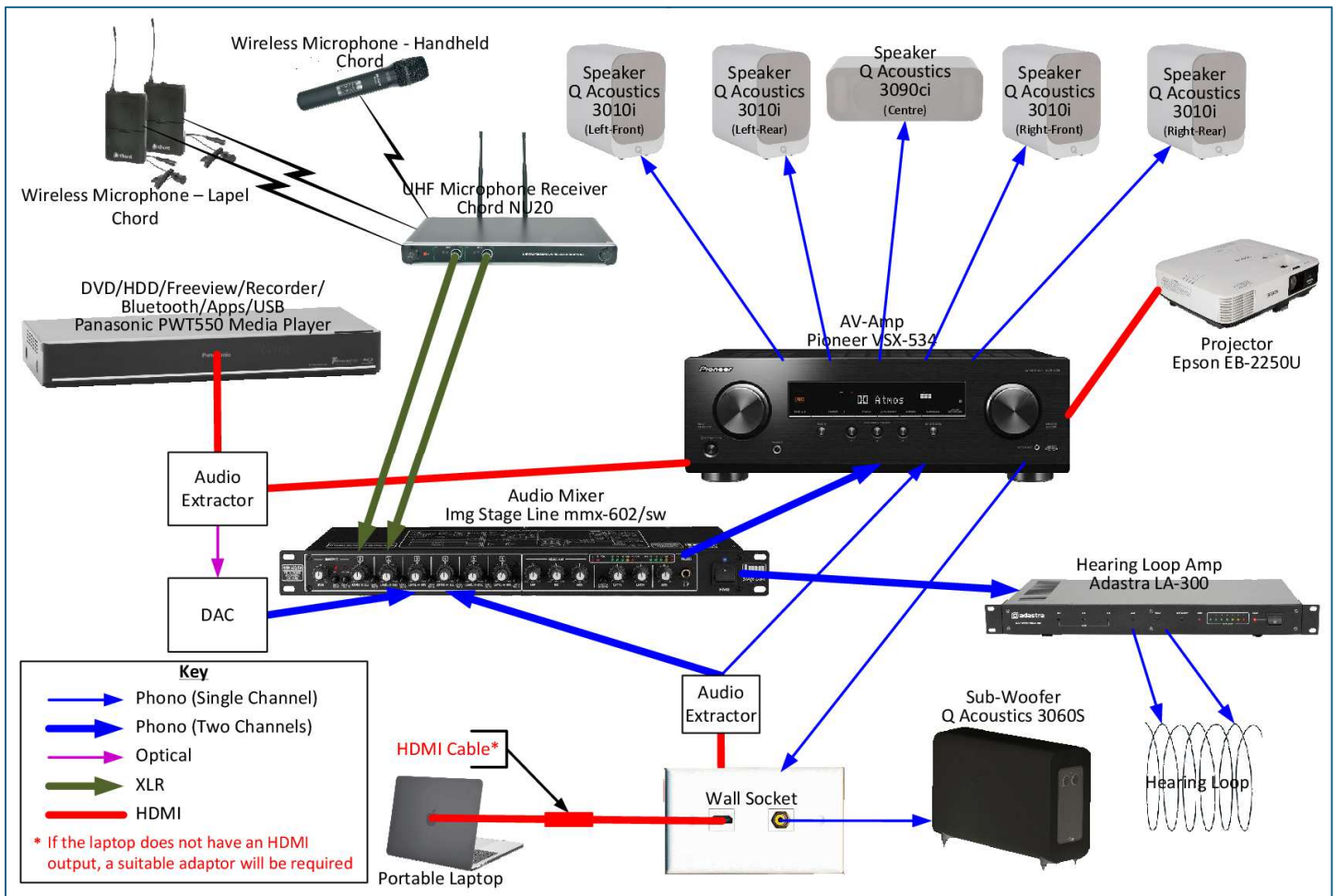


Figure 6: System Schematic

# NOTES ON PROJECTED IMAGE AND ASPECT RATIOS

The projector is a high-quality device capable of displaying a full high-definition image of 1920 x 1080 pixels giving an *aspect ratio* (horizontal divided by vertical) of 1.78, or 16:9. Depending on the type of input (and its corresponding aspect ratio) provided to the projector, the projector will utilise the maximum amount of space available whilst preserving the aspect-ratio of the image. The following table provides guidance on how an image may be presented according to the input provided. If showing a DVD, the aspect ratio of the film is generally printed on the DVD box.

Input	Aspect	Projected Image
Television (HD)	1.78	The image should fill the entire projected area
Television (non-HD)	Various	The image may fill the entire projected area, but for older broadcasts, this may fill the screen top to bottom, but leave a gap at the left and right sides
Film (old)	1.33	The image will fill the screen top to bottom, but leave a gap at the left and right sides
Film (new)	1.85	The image will fill the screen left to right, but there may be a very small gap at the top and bottom
Film (new wide screen)	2.35 or 2.39	The image will fill the screen left to right, but there will be an even gap at the top and bottom. This is sometimes known as a 'letterbox' format.
Laptop	Various	The image size and format will depend on the output of the laptop's HDMI signal

**1.33 or 4:3**  
Standard aspect ratio and standard-definition video

**1.66:1**  
Aspect ratio used for most European theatrical showings

**1.78:1 or 16:9**  
Standard aspect ratio for high-definition video

**1.85:1**  
Aspect ratio used for most U.S. theatrical showings since the 1960s

**2.39:1**  
Aspect ratio of current anamorphic (wide-screen) theatrical showings

In some cases, where the gaps at the side are considered to be too large, it is possible to electronically zoom the image to reduce the size of the gaps. It should be noted however, that for a letterbox wide screen format, zooming in will result in the extreme left and right edges of the images not being displayed. For an older format with a lower aspect ratio and with gaps at the sides, this will result in the extreme top and bottom portions of the image not being displayed.

Electronic zooming can be activated using the projector remote control using the E-Zoom buttons ringed in red in the attached figure. The range of electronic zoom available is 1 (normal) to 4 (4 x magnification). Each press of the E-Zoom buttons will increase or decrease the magnification by 0.125. In order to reduce the size of the gaps in the letterbox wide screen format, it is recommended that zoom levels of less than 1.25 are used, otherwise the image will begin to overflow the top and bottom of the screen.



Note that when the aspect ratio results in gaps either top and bottom, or left and right, the gaps will always be symmetrical. This means that for a wide screen film in the letterbox format, it is not possible to move the image further up the screen. The use of the electronic zoom should be considered instead. Examples aspect ratios of the effect of electronic zooming are shown overleaf in Figure 8.

Figure 7: Representation of Various Aspect Ratios

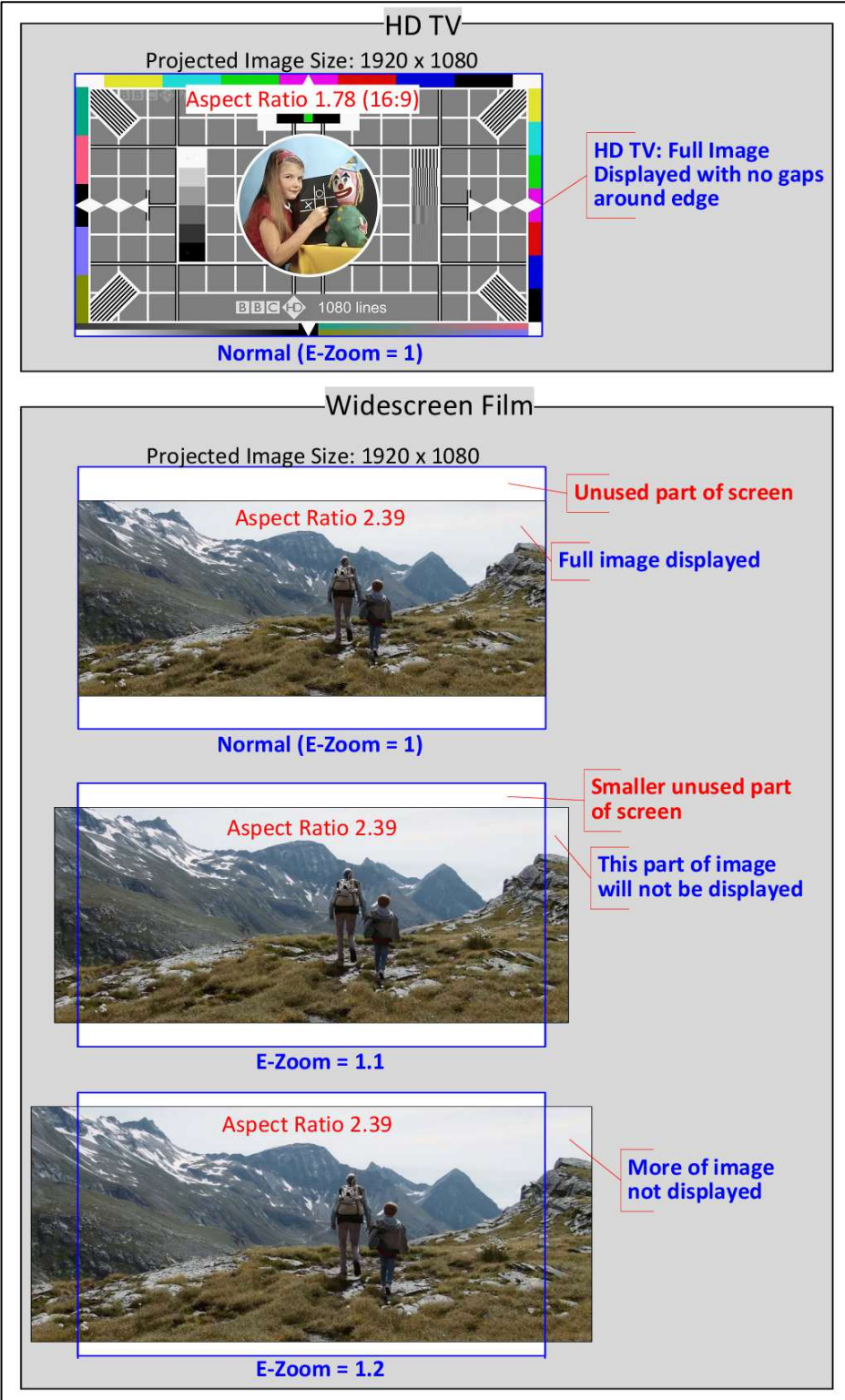


Figure 8: Examples of Electronic Zooming