

IMAGE RATIOS

[Previously “DVD Screenings and FAQs”.]

When I screen a “Widescreen” DVD, how do I remove the dark areas above and below the image?

Answer: The short answer is “You can’t”, or more accurately, “You shouldn’t”. There are actually several ways but you should resist them!

The traditional TV screen is a “standard ratio” of 4x3 which is a very good match for the older standard “classic” movies. This includes the older 4x3 video projectors classed as “data projectors” such as the Toshiba T50 and T60 as supplied by the FVFS in 2008.

If you run a DVD of a 4x3 ratio movie through a 4x3 ratio projector onto a 4x3 ratio screen everything matches perfectly as long as the player and projector are both set to “normal”. However, things get more complicated when you screen a DVD of a Widescreen movie (16x9) or even wider Cinemascope (2.4 to 1 ratio). A Widescreen movie is approximately 30% wider than a standard ratio image so must be accommodated within the screen area without distortion. It is best to keep the 4x3 projector set to “Standard”, relying on the projector to make all the adjustments. Note that not all projectors and players have the same settings or the same names for the settings.



The Interpreter, as intended in 16x9 ratio.
CORRECT

NOTE: The M Censorship rating logo has been added to the original images to show the effect of distortion on something round.

There are many ways to set up the player, only one of which is correct.

1. ZOOM (Never use this)

The movie image is increased in size so its height matches the height of the projected image. The picture proportions are maintained so about 30% of the picture is lost to the left and right of the image. As the film director has assumed you will see all of his picture, you should never use Zoom.



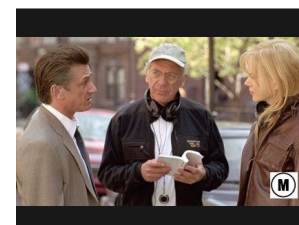
Zoom or Pan and Scan retains the proportions but cuts 33% off the width.
WRONG

2. PAN and SCAN (Never use this)

This is an intelligent variation of Zoom, where the visible part of the image is moved left and right depending on where the relevant action lies. This format is often used by commercial TV channels when transmitting widescreen pictures over normal ratio TV channels.

3. LETTERBOX (Recommended)

This is the best setting. The image is adjusted in size so that the width fits the normal 4x3 ratio TV screen, resulting in black bars across the top and bottom of the screen. This is to be expected, and is the only way to see a widescreen movie in the correct ratio on a standard ratio screen. SBS usually transmit their widescreen movies in this format. Of course the image will fit the newer TV screens perfectly as they are 16x9 ratio, as are the newer HD video projectors. A Cinemascope movie, however, will still be displayed with black bars at the top and bottom of the screen, even with a widescreen, as they are up to 2.4 to 1 ratio.



Letterboxing retains all the image in the right proportions. Just zoom it out on a big screen.

4. FULL SCREEN (Never use this option)

In this setting the image fits the screen perfectly left to right but instead of having the black bars, the image is stretched vertically to fit the height of the screen resulting in a deformed image. No doubt you will have seen the long tall cowboy on the long legged horse!

A similar mistake is often made when a standard ratio image is stretched to fill a widescreen TV. I have seen this many times in pubs and clubs, where the announcer seems uncommonly fat (30% wider than usual in fact!)



Full screen stretches the image to fit a 4x3 screen and distorts it. WRONG

Buster stretched to fit a 16x9 image (ie distorted)
WRONG



Buster in a normal 4x3 image on a 16x9 screen.
CORRECT



IN SUMMARY

Set the DVD player output or TV type to Standard 4x3 or widescreen 16x9 depending on the TV screen or projector capability and select “letterbox” or “LB” in preference to “pan and scan”, “zoom” or “full screen”.

To get the most from the projector set it to “normal”.

If you have any concern that your final image may be distorted, play a DVD and check that no part of the image is lost. Then pause when you see the first round object (viewed flat-on to the camera) such as a car wheel or clock, and check that it is actually round on screen.

If you are worried about the black bars top and bottom of the screen, upgrade to a 16x9 ratio screen and zoom the image to fill the screen.

Please email the editor if you have any ideas you want to try out on us or have other questions.

For further information, or to lodge a FAQ of your own email admin@fvfs.org.au

July 2024
© FVFS
www.fvfs.org.au

Federation of Victorian Film Societies
ABN: 62 373 979 409 Inc: A0028942B
03 9874 5270 c/o 17 Bruce St MITCHAM Vic 3132

