

Enjoy a Great HDTV Picture in 5 Simple Setup Steps

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Basic TV Picture Setup Procedure

Note: For best results, TV settings should be set to match the room ambient light and color. If your TV permits, ideally you should save different settings for daytime and nighttime viewing.

Proceed as follows:

Connect a DVD player to your TV using the best available input you can get. Use component video or HDMI where available. Load a DVD title you are familiar with and set the picture aspect ratio to letter box.

Switch off any unnecessary lights and dim the room lighting to the typical setting you use when watching TV. For daytime viewing, set the room light conditions to the typical daytime environment in your room.

Sit at your normal TV viewing position and proceed with the following settings using the TV remote:

Step #1 - Brightness: This is a misnomer in that brightness is used to set the level of black in the picture. Adjust by first moving the slider all way up and then move down slowly till the letter box bars become just black while still leaving detail in the image dark content.

Step #2 - Contrast: This sets the peak white level i.e. the dynamic range between the black level and the peak white. Start by moving all way to maximum contrast and then down till you achieve a correct level of detail in the brighter areas of the image.

Step #3 - Color Temperature: This will determine whether the image will look cool or warm. The ideal setting is 6500K. If your TV comes with high, medium, low settings for color temperature, choose medium or low. If these settings are not available on your TV, choose *normal mode* for daytime viewing and *cinema mode* for nighttime.

Step #4 - Color Saturation: Move slider control all way to the top, then move it slowly till skin tones on people faces start to appear natural without too much red. Similarly, check for green grass and readjust if necessary for a more naturally looking image.

Step #5 - Sharpness: Turn off edge enhancement if available and adjust sharpness by first moving the slider all way down. Then start to move the slider up to the point when the image just starts to turn harsh or jaggy; back off slightly for a correct setting.

More Advanced Picture Calibration

Use of 'Blue' or 'RGB Only' Mode to Adjust 'Color' and 'Tint' Settings

The five simple setup tips described above would not give you the perfect TV picture but they definitely should help you get an improved image that is significantly better than most out-of-the-box TV picture settings.

Most HDTVs include a number of advanced picture adjustments to help you get the best TV picture. Two of the most important advanced picture settings are 'Color' and 'Tint'; these settings work together to create the correct color.

Unless you know what you are doing, it is best to leave most of these advanced settings untouched but if your TV include a 'Blue Only' or an 'RGB Only' mode as found on most Samsung HDTVs, or some other derivative of this feature as in the case of the LG Picture Wizard, achieving correct color and tint (also known as 'hue') should be relatively easy. You do not need to make use of the color filters otherwise necessary with traditional color and tint calibration since this advanced picture setting switches off two (red and green in the case of the Blue Only mode) of the three primary colors while you carry out the necessary color and tint adjustments.

How to proceed: You need access to a color bar test chart such as the SMPTE color test chart shown on the next page. Most HDTVs featuring these advanced picture settings include appropriate built-in gray and color test charts; you need to use the color test chart.

An alternative source to the built-in test patterns are the color patterns found on inexpensive calibration DVDs as well as other test patterns designed specifically for the

purpose such as the 'COLOR and TINT' pattern supplied with the THX Optimizer; the latter is an easy-to-use AV calibration wizard found on all THX-Certified DVD titles released after 2000.

Adjusting Color & Tint

From the advanced picture settings, activate the **Blue Only** mode if available on your TV; in the case of HDTVs that come with an **RGB Only** mode, select the RGB Only mode and then activate the **Blue color**.

Once the Blue mode is activated, the yellow, green, and red bars in the SMPTE chart would show as black since the red and green colors are switched off, while the white and blue bars would both appear blue. The whole issue is to get these as close a match as possible.



SMPTE Color Test Chart

Go to the **Color** adjustment and adjust the color control until you notice that the two big blue bars on the far right and far left side of the screen match the intensity of both of the smaller horizontal blue boxes just directly below the bars.

Next step is to adjust the **Tint** (green/red) setting. Here you will be making use of the cyan and magenta bars in the above color chart, these would also appear as blue bars when the Blue Mode is active. Adjust the tint level until the intensity of these two large blue bars to either side of the center black bar (the green bar in the color chart above) is in line with that of the corresponding smaller blue rectangles directly below.

You will notice that color and tint are interactive; moving one control also affects the intensity of the other control - meaning that all four blue bars will be affected. Proper color/tint setting is achieved once all four vertical boxes appear as solid blue bars, with no visible distinction between the vertical bars and the rectangular boxes underneath.

Note: The same procedure applies even if your HDTV does not come with a Blue Mode or RGB Mode only feature. However, you will need to manually use of a Blue filter through which you will have to look at the color chart on your TV screen while carrying out the color and tint adjustments.

Suggested further reading @ www.practical-home-theater-guide.com

- TV Viewing Distance Guide:
<http://www.practical-home-theater-guide.com/Tv-viewing-distance.html>
- Speaker Placement Guide:
<http://www.practical-home-theater-guide.com/home-theater-speaker-placement.html>
- Calibration DVDs – An Overview:
<http://www.practical-home-theater-guide.com/set-up-DVDs.html>

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