

PICTURE PERFECT

RECOMMENDED SET UP USER GUIDE



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INTRODUCTION

Knowhow Picture Perfect will show you how you can optimise your TV to achieve stunning picture quality.

The **Recommended Set Up** section is ideal for first time users and provides easy to follow step-by-step instructions. As you will need to pause the screen when making adjustments to your TV settings, we suggest you keep this guide close at hand to refer to.

Important information

Before you begin, it's important to follow the 'Set Up' and 'Prepare your Environment' instructions on pages 4 & 5. If your TV or the environment is not set up correctly for TV optimisation you are unlikely to achieve the best results.

SET UP YOUR TV

- 1** Ensure your TV is properly connected to the Blu-ray player using a HDMI connection.
- 2** If you have a Smart TV and an internet connected Blu-ray player, browse the set up menus and check for updates to ensure your devices are running the latest firmware releases.
- 3** Most TVs have different modes, such as **Dynamic, Standard, Movie, Game**, etc. Select the Standard (or similar) mode for all of your inputs. Dynamic settings should be avoided in all cases as these prevent true optimisation. Set to Standard or Movie to start.
- 4** Disable all special enhancements and features such as **Eco-Mode, Power Saving, MPEG Enhancement, Edge Enhancement**, etc. These are often found in your picture settings advanced options.
- 5** It might be helpful for you to take a note of the current settings of your system if you want to refer back to them at any time.
- 6** Picture Perfect is provided on Blu-ray, DVD and in 720P and 1080P Digital Copy format. Full instructions on using the DVD and the Digital Copy can be found on our website at knowhow.com/pictureperfect
- 7** All format versions of the **Recommended Set Up** include the option to playback with hard-of-hearing subtitles. Note: Digital Copy options for subtitles may not be available on all devices.

PREPARE YOUR ENVIRONMENT

- 1** Close the curtains or blinds in the room where you are optimising the TV and ensure there are no lights projecting onto the TV and causing glare.
- 2** A darkened room is best, although try to apply a degree of normality (i.e. if you tend to watch with a lamp on, turn it on but ensure it's not reflecting on the screen directly).
- 3** You will need your TV remote control and your Blu-ray player remote control. It is suggested you familiarise yourself with the menus on both, in particular how to adjust TV settings such as contrast, brightness etc. Being able to quickly move around the settings will help you later.
- 4** Keep the colour filters included with the disc close to hand, you'll need them later.

Hint: Every TV and room environment is different so you should optimise each of the TVs in your home individually.

TV SETTINGS GUIDE

Every TV is different, but to help we've compiled this table of common methods of accessing the picture settings for the most popular brands and also the general terms this guide refers to.

FUNCTION	SAMSUNG	LG	SONY	PANASONIC
Picture Settings	Menu > Picture	Menu > Picture	Home > Settings > Picture	Home > Settings
Brightness	Brightness	Brightness	Brightness	Brightness
Contrast	Contrast	Contrast	Contrast	Contrast
Sharpness	Sharpness	Sharpness	Sharpness	Sharpness
Colour	Colour	Colour	Colour	Colour
Colour Temperature	Colour Tone	Colour Temp	Colour Temperature	Colour Temperature
Overscan	ScreenFit	JustScan	Display Area > Full Pixel	16:9 Overscan
Tint	Tint	Tint	Tint	Tint
Aspect Ratio	Aspect Ratio P. Size	Ratio	Screen Format	Aspect

Note: Even if you have a different brand of TV from the above, this information should give you a good idea of how to find the relevant settings on your TV. If you are still stuck, refer to your TV's user manual. Also note that this information is general to the brand but specific models may vary.

Hint: Many TVs will allow your new settings to be applied across all inputs automatically - if not you will need to enter each of them manually. Refer to your TV's user manual for details.

THE MENU

Once you've set up your TV and room environment, you're ready to start optimising your TV. Insert the disc into your Blu-ray player.

When the menu appears, our Knowhow colleague Anthony will introduce you to the menu. First time users should choose the **Recommended Set Up** option and then select **Play Step by Step Guide**. The programme will then begin.



LEARN ABOUT COLOUR TEMPERATURE & BRIGHTNESS

Following the introduction, Anthony will explain how to use the **Pluge** pattern (shown here) to start optimisation. This pattern is designed to help you select the correct colour temperature and brightness for your TV.

Using the TV remote, open the menu and look for a picture setting similar to **Colour Temperature**. Adjust this setting until the centre bars have no hint of yellow or blue, and look grey.

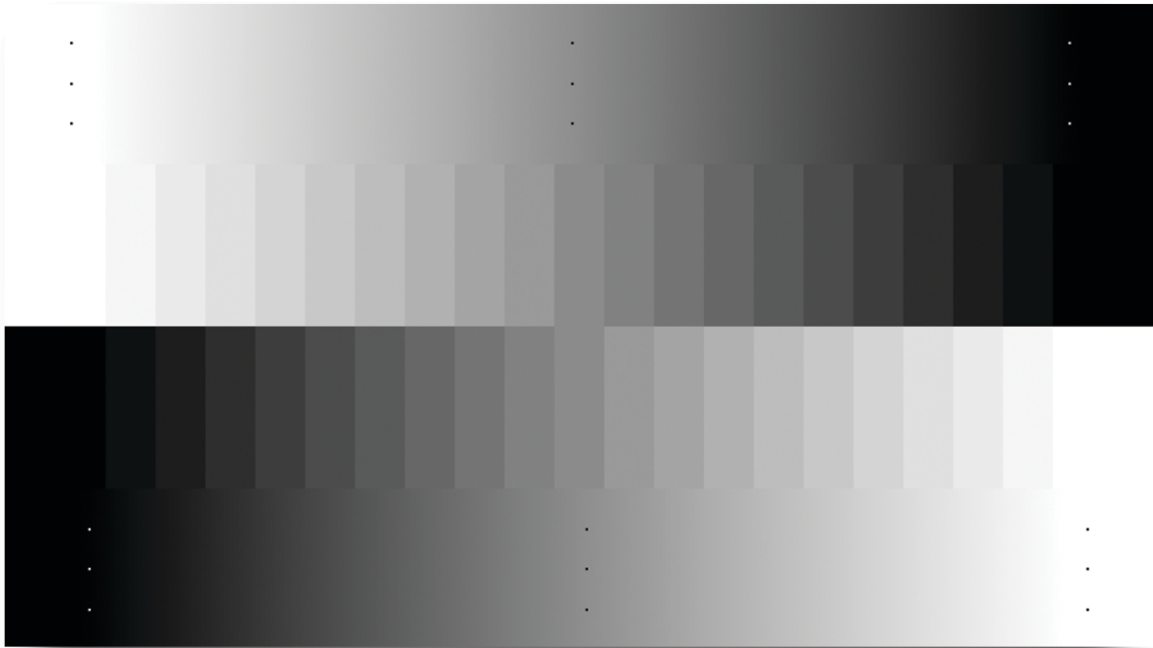


Choosing **Normal** or **6500K** will often be the best compromise for this if possible. This is a test of your own colour interpretation, so whatever you consider to be a neutral grey is acceptable.

Now, locate the **Brightness** and **Backlight** settings. Reduce the backlight setting to around halfway, less in a darker room, more in a brighter room. Now, reduce the brightness until the three bars on each side of the pattern disappear. Then, slowly raise the brightness until you can see the outermost line. You should really have to strain to see it. If it never appears, which can happen on some TVs, the innermost line should be just visible instead.

LEARN ABOUT CONTRAST

The next pattern that appears is called a **Grey Scale Ramp**.

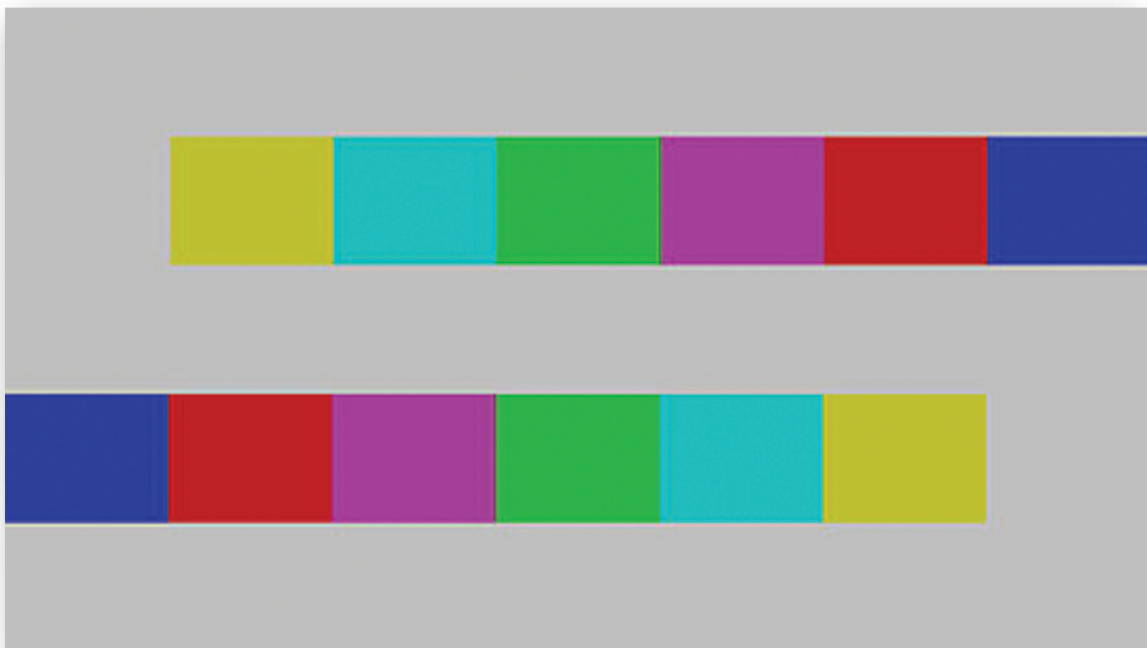


On the TV remote, locate the **Contrast** setting and adjust it to its highest point and work down step by step. You need to try to ensure all of the bars are visible from black all of the way to white.

The area after the small white and black dots at the ends of the scale represent what is referred to as 'below video black' and 'above video white'. Ideally, you should see equal steps through all of the shades from the 'above white' through dark grey through to black. If you can't seem to make your TV show all the steps through the below video black section, just focus on the above video white area.

LEARN ABOUT COLOUR

Now the programme will move to the **Colour** pattern.
The pattern is shown here:



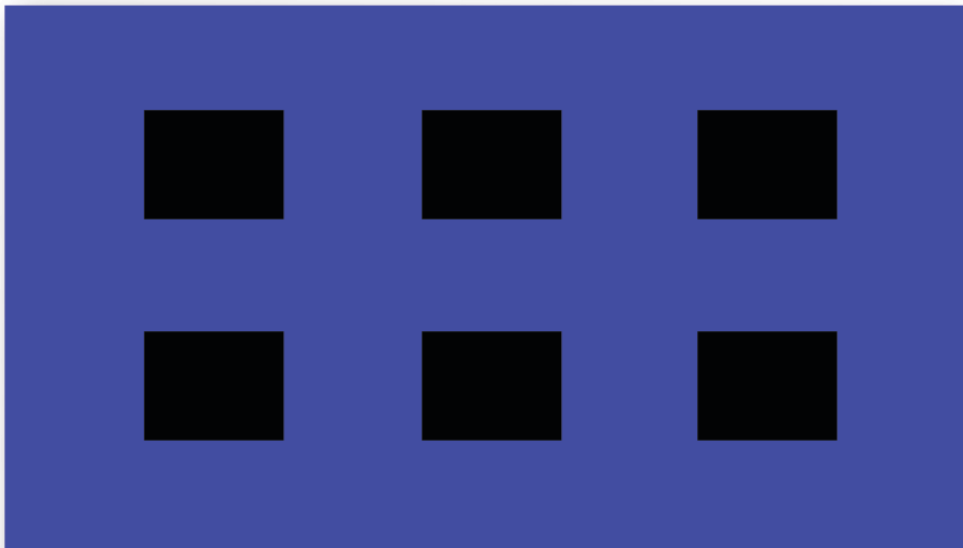
The number of adjustments you can make here really depends on the make and model of your TV. Some TVs will allow you to go into some depth but you may find you only have a single setting to adjust.

On your TV menu, look for the **Colour** setting, along with other settings called **Tint**, **Hue** and **Saturation**. Also, some TVs go much further and allow real fine tuning of individual colours, that's something we should stay away from for now. You can always come back to them later. Once you've found the setting, it's time to use the red/green/blue colour filters on the card included with the disc.

LEARN ABOUT COLOUR - BLUE

The colour filter bars work by blocking all of the other colours from your vision. This means that we can see exactly how your TV is displaying these colours.

Look through the **Blue** filter at the pattern on the screen. You should now see six black boxes on a plain blue background as shown here:



Adjusting just the **Colour** setting on your TV, start at the top and go downwards, until it looks exactly like the image shown - six black boxes on a completely solid blue background. You may also want to slightly adjust the **Tint** setting if you have it on your TV. This allows slightly finer tuning for improved results.

Blue is the most important of the colour bars to get right so take your time with this.

LEARN ABOUT COLOUR - RED & GREEN

Now things get a little more complicated - the outcome will generally depend on your particular model of TV. We're going to move onto the **Red** and **Green** filters bars.



Starting with the red, adjust your **Colour, Tint** and **Hue** options if you have them and try to match the red pattern shown here.

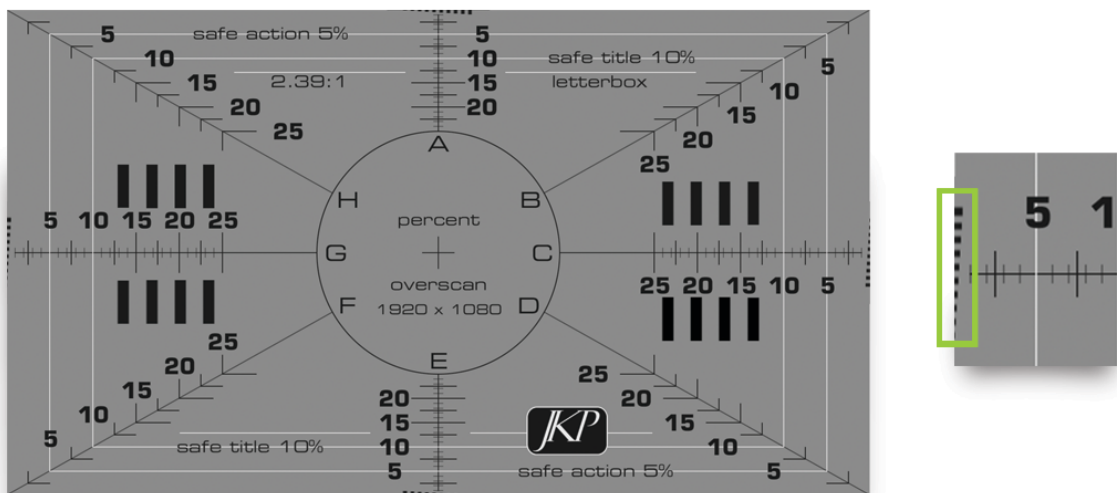
Keep checking back to blue as you go, remembering that the blue is still the most important.

Next, move to the green bars - just try to get as close as possible to the example shown here using the same adjustments as above. Green is where you often need the individual colour adjustment, so this is definitely one to try when you're a little more experienced.



LEARN ABOUT OVERSCAN & SHARPNESS

The final pattern on the programme is the **Overscan & Sharpness** pattern.



This pattern helps you see if your TV is 'over scanning'. Adjust the **Aspect Ratio** control (this might be a button on your remote and not a menu option). Every TV varies so check your user guide if you are unsure and look for an option like **ScreenFit, JustScan, Full Pixel** or **1:1 Mapping**. Your ideal scenario here is to see the 'hatching' around the screen's edge as shown in the smaller image above. This ensures the whole screen is visible and there is no picture distortion.

This pattern helps to optimise sharpness too. Select the **Sharpness** setting on your TV menu, starting at the lowest setting, work upwards until fuzzy edges appear on lines and text. Then work down again, stopping when the fuzziness goes away.

SUMMARY

You've now completed your TV's optimisation. You can see the results by playing the series of video clips in the **Check your Results** section of the disc.

Remember to make a note of the settings in case you need to manually copy them across to each input if they are connected to other devices, such as your satellite/cable equipment and games console (AV1, AV2, HDMI 1, 2 etc.).

You can repeat the procedure as many times as you like on any TV in your home. You may find you get even better results the more experienced you become.

NOTES

A series of horizontal dotted lines for taking notes.

FOR MORE SUPPORT...

visit us at:
knowhow.com/pictureperfect

