

# Monitor Tester

This program will guide you in setting the parameters, controls and adjustments of the monitor and will guide you on how to measure picture quality.

You can test and adjust:

- Geometry
- Picture size and position
- Convergence
- White balance
- Brightness and Contrast
- Focus
- Colour purity
- Moiré

Control

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## Control

Use control panel to choice respective test patterns, (click with the left mouse button).  
To hide control panel click “X” button. To show again click icon in the right corner or use  
right mouse button to show contest menu. All tests are available in contest menu (click  
with the right mouse button)  
F1 – help.



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## About Monitor Tester

Version: 1.0.5

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Visit my page [www.geocities.com/tvdarekz/](http://www.geocities.com/tvdarekz/)

Mailto: [tvdarek@poczta.pnet.pl](mailto:tvdarek@poczta.pnet.pl)

### Polish version of Monitor Tester

Polska wersje programu mozna pobrac z internetu ze strony:

[www.geocities.com/tvdarek](http://www.geocities.com/tvdarek) lub [www.free.poltronic.net/~tvdarekz/gratis.htm](http://www.free.poltronic.net/~tvdarekz/gratis.htm)

Autorem jest: *Dariusz Zamlynski*

Aplikacja ta jest freeware, mozna ja bezplatnie uzywac i rozpowszechniac.

Odwiedz moja strone w internecie: [www.servicetv.republika.pl/](http://www.servicetv.republika.pl/)

Pobierz inne programy i gry freeware ze strony: [www.geocities.com/tvdarek](http://www.geocities.com/tvdarek)

Jesli masz uwagi i sugestie odnosnie programu napisz e-mail: [tvdarek@poczta.pnet.pl](mailto:tvdarek@poczta.pnet.pl)



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Adjustment and testing of the monitor

## Adjustment and testing of monitor

Choice category:

Geometry

Colour

White balance

Resolution, Moiré

Focus

Convergence, colour purity

High voltage regulation test

## Geometry

The geometry parameters are affected by the resolution you use on your monitor. You will have to adjust your monitor for all the different resolutions you use.

Use "Tv test" pattern to check picture size and position.

Adjust other parameters: trapezoid, tilt, rotation, pincushion and barrel

The inner circle in "Tv test" should be perfectly round.



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## Colour

This tester contains test patterns of primary colour and secondary colour:

Primary colours: red, green or blue.

Secondary colours: magenta, yellow, and cyan



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## White balance

Monitors use what is called "additive colour mixing".

This is due to the fact that if we add red, green and blue light together we get white.

Together the phosphors will then emit white light.

Use grey scale to adjust white balance .



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## Resolution, Moiré and interference

Moiré is a natural interference phenomenon that appears on all colour CRT monitors. It is due to an interference between the shadow mask

Look for waves, wisps, bundles and shimmers of intensity variations. Use all the test tools to check for moiré, as the visibility of moiré patterns varies with colours.



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## Focus

A badly focused monitor gives rise to beam spread, especially in the corners. Focus is not the only effect that influences the image sharpness, other main reasons are convergence, blooming, the video amplifier's bandwidth, and resolution. watch out for differences between the centre and the corners.



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## Convergence, colour purity

A white line on the screen consists of three coloured lines: Red, green and blue. If the screen does not have any convergence error the lines are exactly overlaid each other, and the resulting colour is white.

### NO MISCONVERGENCE

In case of a convergence error separate red, green and blue lines can be seen, instead of one white. It is similar to an out of FOCUS image, except that you will see thin coloured fringes around the edges of image detail.

Generally the convergence will be best near the centre, and worst in the corners. As you can see misconvergence also has a bad influence on FOCUS.

Use primary colour to check purity.

Degauss the screen

Stray magnetic fields, and various external magnetic fields, will affect the colour purity of colour monitors. Whenever the monitor is moved or rotated in place it is subjected to a change in the earth's magnetic field, which also affects the colour purity. Degaussing removes the effects of all magnetic field changes.



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## High-voltage regulation

On some monitors the image expands in bright areas and contracts in dimmer areas. This happens because the monitor has a poor high-voltage regulation. This effect is more or less visible in all monitors, but normally more so in very cheap monitor models, as it is not inexpensive to design and manufacture a very good high-voltage regulation system.



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