

Frequently Asked Questions

Pixel problems in SONY camcorders



010-1812006-3

Question

There are little white dot's visible in my viewfinder when I set my iris to close. Is there a solution to eliminate these faulty pixels?

Answer

First of all some pixel trivia;

- Every CCD-block has faulty pixels; it's almost impossibly to manufacture one without defective pixels.
- Most of the faulty pixels show up as white dots in a black background.
- Defective pixels do increase in brightness as the camcorder gets warmer.
- Selecting a higher gain will increase the brightness of the pixels as well.
- The brightness of a faulty pixel might fluctuate over time.

If the little white dot's you see in your viewfinder have the characteristics just described, there are several options to eliminate them.

Automatic Pixel Reduction (APR)

Depending on the type of camcorder you can perform a "deep black balance". This activates a built in scan (called APR) of the CCD-block to determine either there are faulty pixels and eventually compensate for them.

In most SONY camcorders this "deep black balance" is effectuated by pushing the Black Balance switch for approximately 10 seconds.

Manual pixel elimination

As a camera can only compensate for a limited amount of faulty pixels, the APR compensation method is not unlimited. One of the disadvantages of the APR is the fact that it might make the wrong choices while compensating pixels.

A faulty pixel outside the safety area of your picture for example is not as important to compensate as a pixel at the center of your picture. During manual pixel elimination these choices can be made by the technician. This can only be done in a workshop.

LSI-memory CCD repair.

Just like the APR method the "Manual pixel elimination" method is limited in the amount of pixels it can compensate. Using dedicated software, of which Vocas has the exclusive rights for continental Europe and the UK, it is possible to correct/compensate the faulty pixels in the LSI-memory of the CCD-block.

The advantage of this method is that it expands and renews the APR-memory so it becomes functional again. Besides the short turnaround time (in most cases within 3-4 days) it is also far more cost-efficient than the last option; CCD-block replacement.

This service is available for the following models. Of course it is not only available for the mentioned SONY camcorders but also for BTS/Thomson/AMPEX equivalents of these

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cameras. So if you don't find your camera listed please call us, as it is far from complete.

- BVP : 7P, 7AP, 70P, 70ISP, 90P, 370, 375, 550, 570, 700, 750, 900, 950
- BVW : 300, 300AP, 400, 400AP, D600P
- DSR : 300P, 300AP, 500WSP
- DXC : 537, 537A, 637, D30, D30WSP
- DNW : 7P, 9P, 9WSP, 90WSP
- DVW : 700P, 700WSP, 707P, 709WSP, 790WSP

CCD refurbishing

For some cameras it is possible to exchange the actual CCD's. This means the camera/CCD-block has to be shipped to Sony Japan, with a turnaround time of 6-8 weeks, where all defective CCD's will be replaced with new ones. Another problem is the price; the (2005) price level for a DVW-790WSP is over € 12.000,00!

CCD-block replacement

This is the final solution; in the case all the above methods prove useless. The problem with this method is that it is (very) expensive and not available for all camcorders.

A CCD block for the DVW-790WSP is for example not longer available, for this type of camera the only option is to replace it with a refurbished CCD-block.

Conclusion

The first two options are the most cost-efficient, for approximately € 450,00 you can have a "Manual pixel elimination" done in the workshop. If this fails, the best option is to do a "LSI-repair" on the CCD-block as this is relative cost-efficient and quick to perform.

For 90-95% of the pixel problems these solutions will give a good result.

All mentioned prices are exclusive VAT and shipping/insurance costs and are subject of change. Please do not hesitate to contact us for the current prices, or to discuss the possibilities to eliminate your faulty pixels.