



# HANNSpree

Experts in **Display** 

### Pixel Policy Monitors

**Display** Solutions

for your business



#### **Pixel Tolerance**

HANNsprees strive to deliver the highest quality products and therefore use some of the industry's most advanced manufacturing processes and practice stringent quality control. However, pixel or sub-pixel defects on LCD Monitor panels are sometimes unavoidable. No manufacturer can guarantee that all panels will be free from pixel defects, but we guarantees that any LCD Monitor with an unacceptable number of defects will be repaired or replaced under warranty.

This Pixel Policy explains the different types of pixel defects and defines acceptable defect levels for each type. To obtain service within the warranty period, the number of pixel defects on your product's panel must exceed our Pixel Policy levels.

HANNspree uses selected high quality panels for the manufacture of its LCD monitors. Nevertheless, the display may have a few innate cosmetic imperfections that appear as small dark or bright spots. This is not specific to HANNspree monitors, but linked to the current state of the art of LCD manufacturing.

In fact, LCD panels contain millions of small sub-pixels that are each turned on or off by a transistor to make up the picture on the screen. As an example, even a small 19" with a native resolution of 1280 x 1024 contains 3,932,160 sub-pixels, and the latest widescreen panels have many more sub-pixels than these. Due to the immense number of sub-pixels, non-performing pixels can arise in spite of current high technology production processes. Therefore, no manufacturer can guarantee their panels are 100% free of non-performing pixels whilst offering a reasonable price.



#### **Pixel Tolerance**

#### **Pixel Defect Tolerances**

In order to qualify for repair or replacement due to pixel defects during the warranty period, the TFT panel of the monitor must have pixel or sub pixel defects exceeding the tolerances listed in the following tables.

Product	Bright Dot	Dark Dot	Total Dot
Monitor	≤ 3	≤ 5	≤ 5

Note:

This policy is subject to change without any prior written notice.



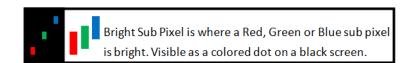
### **Understanding about Defective Pixels in Liquid Crystal Displays**

"Bright" dot (or "lit") defect appears as one randomlyplaced red, blue or green sub pixel that remains permanently lit, resulting in a white or colored dot on a black background.

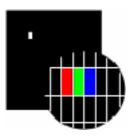
The "Bright" sub-pixel phenomenon, results when a transistor occasionally shorts on and it creates a permanently "turned-on" (red, green or blue) sub pixel.

"Dark" dot defect appears as a sub pixel that remains permanently unlit, resulting in a black dot on white backgrounds.

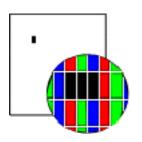
#### Sub Pixel Defects



#### **Pixel**



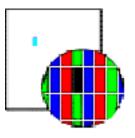
Pixel constantly lit



Pixel constantly dark



Sub-pixel/dot (red, blue, green) constantly lit



Sub-pixel/dot (red, blue, green) constantly dark

## HANNSpree

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thank you 谢谢 grazie Danke grazias merci Спасибо gracias obrigado ありがとう Dank takk bedankt dakujem Dziękuję Kiitos

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