

## Pixel Defect Criteria

LCD displays are made up of a set number of pixels and each pixel is made from 3 sub-pixels; one Red, one Blue and one Green. Every sub-pixel is addressed by its own transistor and so the manufacture of a glass substrate is very complex. Due to the nature of the manufacturing process, occasional defects can occur. Pixel defects or failures cannot be fixed or repaired and can happen at any stage in the LCD's life.

The below table details how many defaults are acceptable in a display before it should be replaced, within the terms & conditions of warranty. It is based on ISO13406 the international standard for pixel defects in TFT panels.

The table below shows the allowable number of malfunctioning pixels that are acceptable:

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Panel Defect Criteria												
ction	Defect picture	Test Pattern	10.4	17"	19"	26"	32"	40"	57"			
Random	•	Black Gray	4	5	4	1	1	1	3			
Bright Dot two adjacent	00000 00000 00000 00000 00000 00000 00000 00000	Diack, Gray	1	2	1	0	0	0	1			
Random	•		-	-	-	8	8	8	10			
two adjacent		Black, Gray	-	-	-	0	0	0	0			
three adjacent		$\wedge$	/ 1	C	-	0	0	0	0			
Random		<b>-\</b>	4	7	6	8	8	8	10			
two adjacent		White, R,G,B	1	4	3	2	2	2	3			
three adjacent			0	1	1	0	0	0	1			
Maximum allowable number of dot defect			8	10	10	10	10	10	15			
Minimum distance between defects												
Bright dot to Bright dot  Dark dot to Dark dot		Black,Gray		All	L=15mm		5mm	5mm	-			
		White,R,G,B		allowed	L=5mm		5mm	5mm	-			
	Random  two adjacent  Random  two adjacent  three adjacent  two adjacent  three adjacent  umber of dot detween defects  right dot	Random  two adjacent  three adjacent	Random  Random  two adjacent  Black, Gray  White, R,G,B  White, R,G,B  Black,Gray  Black,Gray	Random  two adjacent  three adjacent  Black, Gray	Random  Random  Test Pattern 10.4" 17"  Black, Gray  Two adjacent  Three adjacent  Test Pattern 10.4" 17"  All all all and a section 10.4" 17"  Two adjacent  Three adjacent  Test Pattern 10.4" 17"  All all all and a section 10.4" 17"  Three Pattern 10.4" 5  Black, Gray	Random  Random  Black, Gray  two adjacent  two adjacent  three adjacent  three adjacent  three adjacent  three adjacent  three adjacent  Black, Gray  Ali L=15mm	Random   Black, Gray   Company   C	Random   Black, Gray   1   2   1   0   0	Random			

NOTE: The above details are decided upon by the manufacturer of the actual LCD display and are not therefore subject to the discretion of Aquavision or its retailers/distributors.



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