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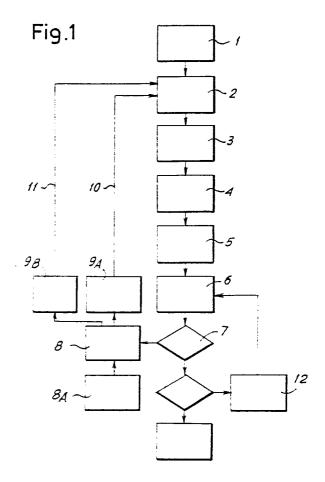
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System for correcting the geometry of the image resulting from the assembling of the deflection yoke on a cathode rays kinescope.

For the correction of the geometry and the distortions of the image obtained by a deflection yoke when associated with a kinescope to be steadily assembled to a yoke or to a reference kinescope, the following steps are provided: (1) generating a signal for the reference image, by a programmable signal generator; (2) displaying a distorted image on the kinescope/yoke under test; (3) reading the image through a solid-state television camera; (4) converting the analogic signal of the telecamera into a digital signal to make it utilizable by the processor; (5) storing the signal in a RAM type memory to keep it available during the processing; (6) processing and comparison in real time of the data relative to the distorted image with a reference or sample image on

the basis of comparison-algorithms specifically studied for the various parameters coming from (12); (7) comparing the data with the tolerances; going on with the correction if necessary, otherwise performing the next step to begin the correction of another type of distortion; (8) calculating the correction necessary for that parameter through the proper correcting algorithm supplied by 8A; (9) performing the correction which must reduce the distortion of the displayed image, automatically obtained at(9A)-(through the path 10) on (2), or by a guidance for the operator obtained at (9B) for a manual introduction according to (11).





## **EUROPEAN SEARCH REPORT**

EP 86 83 0287

| Category  |  | th indication, where appropriate,<br>vant passages                          | Relevant<br>to claim  | CLASSIFICATION OF THE APPLICATION (Int. Cl.4)  |
|---|--|---|---|--|
| Y   | EP-A-O 135 072<br>* Abstract; figu:<br>line 12 - page 14   | re 7; page 12,  | 1-4,6   | H 01 J 9/44<br>H 01 J 29/70  |
| х   |  | •   | 7-9   |  |
| Y   | DE-A-3 146 441  * Abstract; page 9, line 5 *   | -<br>(PHILIPS)<br>ge 8, line 18 -   | 1-4,16  |  |
| х   |  |   | 15  |  |
| Y   | US-A-4 398 166<br>* Figure 1; colu   | -<br>(BŪMGARDNER)<br>mn 1, lines 36-49                                      | 3   |  |
|   |  |   |   | TECHNICAL FIELDS<br>SEARCHED (Int. Cl.4)   |
| Y   | EP-A-0 123 612 (VIDEOCOLOR)  * Abstract; figure 1; page 5, lines 5-7 *   |   | 16,17   | H 01 J 9/00<br>H 01 J 29/00  |
| х   |  |   | 15  |  |
| Y   | EP-A-0 123 613 * Figures 2,3; 20-26 *  | - (VIDEOCOLOR) page 8, lines/-  | 6   |  |
|   | The present search report has b  | een drawn up for all claims   |   |  |
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## **EUROPEAN SEARCH REPORT**

EP 86 83 0287

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| ategory  |  | h indication, where appropriate,<br>ant passages   | Relevant<br>to claim  | CLASSIFICATION OF THE<br>APPLICATION (Int. Cl.4)                  |
| Y  | US-A-3 965 386<br>* Abstract; figu   |  | 6   |   |
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