Macintosh 21 Color Display: Automatic Degaussing Feature 10/91

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TOPIC -----

This article explains the circuitry in the Macintosh 21-inch Color Display that compensates for magnetic field image distortion.

DISCUSSION -----

The circuitry in the Macintosh 21-inch Color Display provides what is called automatic degaussing to ensure a good image on the screen. Color displays use magnetic fields to guide electron beams inside the CRT to the screen. An external magnetic field close to the CRT can disturb the internal magnetic field, misdirect the beams, and distort the screen image.

Circuitry in most monitors adjusts the internal magnetic field to counteract the external magnetic field, but only at startup. If the external magnetic field changes during operation, a distorted image remains until the power cycles off and on. The AppleColor High-Resolution RGB Monitor has a manual degauss control button that you can press rather than turning off the monitor.

The Macintosh 21-inch Color Display has startup, manual, and automatic degaussing features. It contains an auto-degaussing circuit, called a magnetometer, that measures magnetic fields. The magnetometer sends a signal that initiates a degauss when it senses a major change in the ambient magnetic field. The magnetometer operates constantly while power is on, and degaussing can occur even when no image is on the screen.

Tilting or swiveling the monitor may change the magnetic field enough to cause distortion, and trigger automatic degaussing. Occasional automatic degaussing is normal. If degaussing occurs when you haven't moved the monitor, a source of interference may be in the room. You may have to move the source of interference to reduce the frequency of automatic degaussing. Frequent auto-degaussing can be annoying because it causes the screen to continually blink.

Support Information Services

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