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Macintosh 21-inch Display: Image Shaking (11/93)

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Security: Everyone

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TOPIC -----

I have a Macintosh 21-inch Display near some florescent lights and it causes the image on my monitor to shake and jump. I cannot move the monitor any further away from the lights. Is there any magnetic shield or anything else that can be used to prevent the image from shaking so violently?

DISCUSSION -----

There is no practical method of shielding the monitor from this type of external interference. However, since you have localized the problem to fluorescent lighting fixtures, a solution to your problem should not be difficult.

A fluorescent fixture that is functioning correctly should not interfere with a monitor's operation. It is not uncommon for these lamps to arc internally. In many cases this action is readily apparent because the lamps have a discernible flicker. In most cases, the internal arcing does not affect the light output of the lamp. The best way to isolate a defective lamp is by disconnecting one lamp at a time until the symptom disappears or becomes less severe. When following this procedure be aware that the problem may involve more than one lamp. If the lamps check good but the symptom persists, the problem is associated with one of the ballasts that drives the lamps. The defective ballast should be replaced.

The reason that fluorescent fixtures interfere with monitor performance is due to the monitor's refresh rate. Because the lamps tend to arc at a 60 hz rate (because they are driven from a 60 hz power source--the wall outlet), they transmit noise at this rate. Therefore, if the monitor does not operate at the identical 60 hz refresh rate (our monitors usually operate at a higher rate), it interprets these pulses as synchronizing signals which causes the

display to jitter.

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