

Help for Static Cling

Question: Last winter, we had a lot of problems with static cling, where the film tends to stick together as it goes into the "brain" of the platter. We had a few jams, and even had the last reel of the print slide off the platter when the speed got out of control. What can be done to control this problem?

Answer: First, use an accurate digital humidity gauge to measure the relative humidity in the projection room. (Radio Shack and Edmund Scientific have suitable digital hygrometers for less than \$30). Adjust the HVAC or use portable evaporative humidifiers to keep the humidity between 50 and 60 percent. Don't use humidifiers that actually spray water droplets into the air, as they will leave behind a white dust from the minerals that are in tap water.

Be sure all equipment is properly grounded. Generally, platters and film handling equipment with conductive surfaces are less prone to static buildup (measure resistance to ground with an ohmmeter). Treat non-conductive materials (painted or anodized platter surfaces, plastic rollers, etc.) with Static Guard™ or other anti-static chemicals to increase conductivity. In extreme cases, the print itself can be treated with Static Guard. Some projectionists have found that active ionization units (e.g., Kinetronics StaticVac™ Film Cleaner, Staticmaster™ brushes, or corona discharge ionizers from Simco or Meech) are effective in controlling static build-up on the film. The best place to use them is between the projector and the platter take-up, so static is removed just prior to windup.

We have found that winding orientation can affect how easily the film pulls an adjacent lap into the "brain" of the platter, depending upon the curl of the film. If you normally wind the film on the platter with the soundtrack side up, try winding it with the soundtrack side down (or vice-versa). Static cling is usually most apparent during the later reels of longer pictures, since the film is coming off the inside of the feed roll at a very shallow angle, allowing static to attract adjacent convolutions of film. That is why long movies are most affected.

Kodak has always recommended the use of a tension-sensing fail-safe that shuts down the projector in the event of a platter jam or brainwrap. Always use sufficient platter clips (suction cups) around the outside of the feed roll to prevent it from getting off center or sliding off the platter due to "static fling."

Another device that helps prevent film jams and sliding film rolls is the Non-Slip Platter Disk (patent applied for), sold by Projection Technology, Inc. (phone: 516/576-0767). This unique invention by projectionists Stuart Boritz, Edmund Nardone, and Andrew Fetherman fits on the platter surface, and although it doesn't eliminate static cling, it helps separate the film laps if they stick together, and provides a non-slip surface so the film roll doesn't slide.

The best news is that Kodak has just introduced two new color print films which feature an anti-static backing layer. We are working with film laboratories to incorporate an anti-static process additive in the final rinse of the process. Testing shows that the combination of the new films and anti-static process additive will almost completely eliminate "static cling." The new Kodak Vision print films also reduce static attraction of dirt to the film, so prints should stay cleaner. Projectionists will also welcome the elimination of annoying static "shocks" as they wind and handle film during inspection and make-up onto the platter.

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