

## CD/DVD Damage and Cleaning Cheat Sheet

### Damage Control

An optical infrared laser reads the pits and gaps in a disc. The information passes through the plastic layer and is reflected back by the foil layer. When scratches, fingerprints, or foreign materials interrupt the reading process, the laser is unable to process the info correctly, causing skipping, freezing or scrambling of the information.

R - repairable

NR - not repairable

### Types of Damage.

1. Play side damage (plastic layer)  
Scratches and marks are the most common type of damage. R unless severe.  
  
identification process - Plastic layer scratches are seen as a double image reflection of the mark. By holding the disc at an angle near a light source and tilting the CD back and forth, this double image should move with the angle. Circular scratches are worse than straight-line scratches.  
  
Prevention - sprays, film over new CD, jewel case liners  
Repair - buffing / resurfacing machines and kits, Goo Gone
2. Top side damage (foil layer)  
pinholes /gouges through a disc. NR  
  
identification process - hold CD with flat side between you and light source. No light should come through.  
  
prevention - label scratch guards  
  
bubbling of foil layer due to heat. Looks like gold ball dimples. NR.
3. Cracking/breaks in disc. Caused from wear starting at the center hole. Over time, stress fractures can widen from the center to the playing area. When this happens, the disc is NR.  
  
prevention - metal-reinforced guards, sturdy cases.
4. CD/DVD rot. Deterioration of lacquer and graphic layers. NR  
  
identification - discoloration on the foil side of the disc, possible ink leakage. Static hiss that gets louder as the volume increases. Happens more frequently in older discs that were not sealed properly  
  
prevention - label scratch guards, out of sun and heat

### Cleaning and Handling

Cleaning -Use dedicated disc cleaner and a microfiber cloth. Do not use a paper towel, glass cleaner, or anything with alcohol or ammonia. Water with a few drop dish soap is fine. Wipe from inner ring to outer edge in straight line. Do not use a circular motion.

Handling - Only handle at the edges. Top foil is more fragile than playing underside.