

# Optical Discs

Problems	Identification	Remedies
<b>Delamination</b> <i>Layers of disc begin to separate.</i>	May cause discoloration over the foil layer, rendering the disc unreadable	These problems are difficult to remedy. It is better to prevent them by storing materials properly.
<b>Warping</b> <i>Symptomatic of inadequate storage.</i>	Signs of warping and disc will not play properly because laser cannot focus.	These problems are difficult to remedy. It is better to prevent them by storing materials properly.
<b>Physical Damage – Top of Disc (Label Side)</b> <i>Occurs in both CDs and DVDs, specifically the label side. May permanently remove data.</i>	CD: scratches on top of disc and readability issues. DVD: visible scratches on top of disc. Readability is usually still good.	Minor scratches will probably not affect playback, especially with error correction, for DVDs. CDs are more fragile because the data and reflective layers are closer to the surface. Something as small as a fine-point marker or pen has the potential to cause irreparable damage.  Major scratches, especially those that are in the circular direction of the track or those that are severe enough to damage the data or metal layers of CDs, cannot be corrected.
<b>Physical Damage – Bottom of Disc (Laser Reading Side)</b> <i>Occurs in both CDs and DVDs, specifically the laser side. May permanently remove data.</i>	Scratches on bottom of disc. May or may not have readability issues dependent on depth and width of scratches.	Minor scratches will probably not affect playback, especially with error correction. Major scratches, especially those that are very deep may interfere with the laser focus, and therefore error correction. Some data may be lost.
<b>Dirt or Dust on Disc Surface</b> <i>Most likely noticeable on laser reading side of the disc.</i>	Small particles on disc surface.	Use compressed air to remove unwanted material from surface of disc.
<b>Fingerprints on Disc Surface</b> <i>Most likely noticeable on laser reading side of the disc.</i>	Marks on disc surface.	Use a “soft cotton cloth or chamois” to wipe the disc in an outward direction. Do not wipe in the direction of the circular tracks.

A thorough inspection should be performed before playing back recordings.