

# Grooved Recordings

Problems	Identification	Remedies
<b>Fragility</b> <i>Grooved recordings are fragile by nature, due to the physical makeup of the substrate and/ or wear of the grooves over time.</i>	Cracks or broken discs/cylinders indicate your media is in a very fragile state.	Transfer these records as soon as possible. Handle with care and seek professional help from an Audio Video Preservation Specialist if you cannot properly repair in-house.
<b>Delamination</b> <i>Frequently occurs around the edges of a disc, but may start in the middle by bubbling.</i>	If you notice upon visual inspection of a grooved disc or wax cylinder the coating is cracking, bubbling, or peeling, it may be suffering from delamination. Loss of information may be irreversible.	Remaining information adhered and contiguous to the grooves may be saved with extreme skill and care. Seek professional help from an Audio-Video Preservation Specialist if delamination is severe.
<b>Palmitic Acid</b> <i>Lacquer discs contain castor oil, which over time may leach out of the coating and turn into palmitic acid on the surface of the disc. This is the first step towards delamination.</i>	A white, oily sheen may indicate the presence of palmitic acid on your grooved recordings.	Deposits can be removed using proper chemistry and equipment. Seek professional help from an Audio-Video Preservation Specialist.
<b>Oxidation</b> <i>Common issue with aluminum discs. Uncoated aluminum discs may suffer from oxidation.</i>	Deposits of white material on the surface of an aluminum disc may indicate oxidation.	Cleaning may do more harm to the disc. Seek professional advice from an Audio-Video Preservation Specialist.
<b>Warping</b> <i>LP's are most susceptible to warping if not properly stored, or if exposed to heat and/or sunlight.</i>	Vinyl discs will exhibit signs of buckling and warping	Remove from heat and store in cool environment.
<b>Mold or Fungus</b> <i>All grooved recordings are susceptible to mold or fungus growth.</i>	Powdery white substance that appears to grow or spread on recording. This may destroy the grooves of your media if not attended to immediately.	Do not handle recording because mold and fungus can be serious health hazards. Seek professional help from an Audio-Video Preservation Specialist.
<b>Dirt</b> <i>Dirt may scratch the disc and dust in the grooves may cause premature groove wear.</i>	You may notice dirt and dust upon general visual inspection or after using a microscope to inspect the grooves.	Dependent on your grooved media, you may use distilled water or a Record Cleaning solution with a non-abrasive, lint-free cloth (see Library of Congress link below for recommendations).

A thorough inspection should be performed before playing back recordings.