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Cylinder, Disc and Tape Care in a Nutshell

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HANDLING

General	Do not touch the playing surface/s of any recording. Clean hands before handling recordings.
Discs	Handle all grooved discs (78s, 45s, LPs, and acetate discs) by their edge and label areas only. Handle compact discs by outer edge and center hole only.
Tape (Open Reels)	Handle by the outer edge of the reel flanges and center hub areas only. Do not squeeze flanges together -- it will damage tape edges.
Tape (Cassettes, Audio and Video)	Handle by outer shell, only. Do not place fingers or any other materials into openings.
Cylinders	Handle by inserting middle and index fingers in the center hole, then gently spread them to just keep the cylinder from slipping off. Do not touch the grooves of wax cylinders; they are very susceptible to mold. Wax cylinders should be at room temperature before touching; the thermal shock from the warmth of your hand can cause cold wax cylinders to split.

STORAGE

General	Keep all discs and tape both open-reel and cassettes standing upright, on edge. Store cylinders standing on their ends. Do not lay any recording flat, not even audio or videocassettes.
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Environment

Keep all storage and use areas clean.

Medium-term Storage

(materials to be preserved for a minimum of 10 years, ANSI IT9.13, 1996) Storage areas should be kept at a constant 65 to 70° F and 45 to 50% Relative Humidity (RH). Widely fluctuating temperature or RH severely shortens the life span of all recordings. Environmental conditions shall not fluctuate more than ± 10 F or $\pm 10\%$ RH over a 24-hour period. Keep recordings away from light, especially sunlight and unshielded fluorescent lights.

Long-term Storage

(Materials having permanent value) Storage areas should be kept at a constant 45 to 50° F or colder (do not store magnetic tapes below 46° F as it may cause lubrication separation from the tape binder) and 20 to 30% RH for magnetic tapes (open reel and cassette) and 45 to 50% RH for all others. Widely fluctuating temperature or RH severely shortens the life span of all recordings. Environmental conditions shall not fluctuate more than ± 5 ° F or $\pm 5\%$ RH over a 24 hour period. Store in dark areas except when being accessed, being sure to keep recordings away from UV sources (unshielded fluorescent tubes and sunlight.)

Tape Demagnetization

In general, demagnetization is not a problem in most situations. For an added margin of safety to prevent demagnetization keep all tape (open reels and cassettes) away from potential sources of demagnetization, such as loudspeakers, most of which have sizable magnets in them. Do not set tapes on top of or leaning against any equipment which can be a source of either magnetic fields or heat. Be careful about operating machines with electric motors (e.g., vacuum cleaners) next to tape storage areas.

Shelving

Recordings are surprisingly heavy. For example, LPs average between 35 and 45 pounds per shelf-foot; 78 rpm and acetate discs are even heavier. Because of their shape and the design of their packaging, recordings will concentrate their weight in the centerline of a shelf, which can cause some shelving to collapse. Make sure that the shelving you choose is solid and well constructed.

Discs

Must be shelved vertically. Ideally, disc shelving should have full-height and full-depth dividers, spaced 4 to 6 inches apart, and secured at top and bottom. Less than full-height dividers may contribute to warpage. Interfiling discs of different diameter may also cause warpage.

Tapes (Open reel)

Boxes should be stored vertically. Dividers are not essential, but the boxes must be secured with a bookend and not allowed to fall.

Tapes (Cassettes, Audio and Video)

Cassettes in water repellent plastic containers should be stored vertically "on edge," not flat.

Cylinders

Stored standing "on end," like a drinking glass.

Winding tapes

Contrary to what your local video-store may say, tapes, including cassettes, should not be stored in the rewind or fast-forwarded position. Ideally, play a tape completely through, then store it without rewinding. Rewind it just before playing it again.

PACKAGING, CONTAINERS

Discs

Most record sleeves should be replaced with a high density polyethylene such as DiscWasher V.R.P., Mobile Fidelity Original Master Sleeve, or Nagaoka No. 102 Anti-Static Record Sleeve. If an original paper sleeve contains text or graphics, the Nagaoka sleeves are thin enough to fit inside the paper sleeve.

Some plastic or plastic-lined sleeves should not be used. As a rule of thumb, "bad" sleeves are clear and have a sticky or tacky feel whereas "good" sleeves are frosted in appearance and have a slippery feel.

Tape (Open reels)

Replace any reel which has a slotted hub. Only reels with unslotted hubs are acceptable for storage. Reels with slotted hubs may be used as take-up reels.

PLAYBACK EQUIPMENT MAINTENANCE

Clean equipment (tape heads, guides, etc.) often and thoroughly with isopropyl alcohol and cotton swabs. Demagnetize tape decks periodically; if you are unsure about doing this leave it to a professional. Clean the phonograph stylus before playing each disc side using a densely packed bristle brush such as DiscWasher's SC-2 or LAST's stylus cleaning brush. Learn how to balance and set the tracking and anti-skating on your tone arm. Check the settings at least once a month or anytime you hear mistracking.

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Washington, D.C., St. Paul, MN: Commission on Preservation and Access, National Media Lab; 1995. [4], ii, 34 p; ISBN: 1-887334-40-8.

Note: Available from Commission on Preservation and Access; 1400 16th St., NW, Suite. 740; Washington, D.C. 20036-2217. Illustrated; bibliography; glossary. Includes reprint of Ampex 'Guide to the care and handling of magnetic tape'; estimation of magnetic tape life expectancies; and a resources list for transfer and restoration of video and audio tape. Focuses on how to properly store and care for magnetic media to maximize their life expectancies. Includes technical explanations for the rationale behind recommended procedures, written specifically for those who do not have a significant background in recording technology. Topics covered include what can go wrong with magnetic media, preventing information loss, life expectancy (how long will magnetic

media last), prevention of premature degradation (care, handling, storage, staging, refreshing of media), and a reprint of the Ampex 'Guide to the care and handling of magnetic tapes.'

Supply Sources

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