

NAD

5080 Turntable

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Please note that this document contains the text from the original product brochure, and some technical statements may now be out of date



The NAD 5020A and 5080A turntables are precisely engineered products employing the best in modern materials technology. They combine first-class record playing performance, long-term reliability, convenient operation, and an economical purchase price.

THE TONE ARM

In principle the job of a turntable is simple: to suspend the pickup cartridge in mid-air while spinning the record under it. But since the record may contain groove modulations as small as a wavelength of light, this job must be executed with extreme accuracy. The tone arm must be stable, rigid, vibration-free, friction-free, and very low in inertia so as not to alter or impede the tracking of the groove by the stylus.

Both NAD turntables employ the same high-quality tone arm. It is a straight tube, made of black-anodised low-resonance aluminum alloy, selected for an optimum combination of low mass and high rigidity. The open-frame plug-in headshell is molded from light-weight resonance-absorbing carbon fibre. The total effective mass of the tone arm, referred to the stylus tip, is a mere 10 grams-half that of some well known tone arms. The arm pivots on jewelled bearings whose friction is only a few thousandths of a gram! These features ensure agile tracking of even the most warped records-and they guarantee that, regardless of what phono cartridge you choose to use, from a budget model to the most refined moving-coil pickup, its full performance will be realised in this arm. When a pickup cartridge is installed in any pivoted tone arm the adjustment of stylus "overhang" is critical to ensure that the stylus will be tangent to the groove at all points on the record. In the new NAD tone arm this adjustment has been made easy: the cartridge carrier rides in parallel grooves in the headshell, allowing the cartridge to be moved back-and-forth with no fear of twisting; and cartridge alignment guidelines are conveniently molded into the underside of the platter mat.

AUTOMATIC OPERATION, FRONT-MOUNTED CONTROLS

While you may operate the tone arm by hand if you wish, a simple shift of the control lever provides fully automatic operation: the platter starts rotating, the arm moves to the lead-in groove and lowers the stylus, then at the end of the record the arm lifts and returns to its rest while the motor shuts off. The cycling mechanism is made of low-friction Delrin for extremely quiet, smooth operation, and it is completely disengaged from the arm except during cycling operations. Since there are no linkages attached to the arm, the convenience of automatic operation is obtained with absolutely no compromise in the arm's excellent record-playing performance.

For still greater operating convenience the turntable controls (including the cueing lever for raising and lowering the arm) are located along the front edge of the base (plinth), making it easy for you to play records with the dust cover closed.

PLATTER DRIVE SYSTEM

In the NAD 5020A the diecast aluminum platter is driven by a vibration-absorbing soft-rubber belt. The motor is synchronous in its operation (which means that it locks onto the AC power-line frequency and maintains precise rotational speed unaffected by variations in line voltage), but it also contains an induction rotor to provide the high starting torque needed to get the platter up to speed.

The NAD 5080A is a direct-drive unit: the turntable's central spindle is the shaft of the motor. In many early direct-drive designs this approach caused high levels of infrasonic rumble, because conventional electric motors deliver their power in a series of torque pulsations ("cogging") instead of a smooth rotary flow. (E.g. with a "12-pole" motor there are 12 pulsations per revolution.) In the NAD 5080A this problem is completely eliminated with the aid of a new coreless, slotless, brushless motor which exerts a constant magnetic force throughout the entire 360-degree rotation of the platter. Thus the advantages of direct-drive operation are fully realised with no off-setting disadvantages.

As an added convenience a Pitch control is provided for adjusting the speed over a 6 percent range, and an included strobe allows you to set the speed to exactly 33.3 or 45 rpm.

EXTRA FEATURES

The decorative soft-rubber mat is actually an integral part of the engineering design, efficiently suppressing any resonant vibrations in the metal platter. The fiberglass-composite base resists abrasion or wear and is supported on spring-loaded large-diameter rubber feet for improved resistance to vibration and acoustic feedback.

TURNTABLE

Drive system	Direct drive
Speeds	33.3 and 45.1 rpm
Speed adjustment	±3%
Wow and flutter	0.10% DIN peak
Signal/Noise ratio	-68dB (DIN B weighted)

TO NEARM

Operation	Fully automatic (<i>Cue & start, lift & stop at end of record</i>)
Length	208mm pivot to stylus
Effective mass	10grams
Overhang	17mm
Lateral tracking error	0.38°
Cable capacitance	170pF

Remote	No
NAD Link	No

PHYSICAL SPECIFICATIONS

Dimensions (<i>W x H x D</i>)	450 x 156 x 365mm
Net weight	5.5kg
Shipping weight	7.7kg

Dimensions are of unit's cabinet without attached feet; add up to 18mm for total height.

Dimension depth excludes terminals, sockets, controls and buttons.