

2500 AND 2800 SIGNATURE

Note: All technical details, with the exception of the Vacuum notes, are identical on both 2500 and 2800 turntables.

THE 2500/2800 PEDIGREE

Before considering any details of the 2500 the prospective purchaser should realize the benefit he will receive from the fact that his 2500 was designed and manufactured by the same company that has designed and produced the incredible Basis Work of Art turntable and the legendary Debut series, which has been in production for 20 years. The **2500 platters and bearings** are identical to the Debut items. The 2500 uses the same motor as the Debut. The 2500 suspension is an adaptation of the Debut suspension. It would be impossible for the 2500 to be produced at its price without the simultaneous production of Debut parts. As for the **design pedigree**, it is undeniable: the same designer of the Work of Art and Debut designed the 2500.

The 2800 is identical to the 2500 while adding the Basis Vacuum Record Hold-Down System.

2500/2800 OVERVIEW

The 2500 Signature represents the refinement of the original 2500, which has been in production since 1987. The 2500 incorporates an innovative adaptation of the Basis fluid damped suspension of the Debut model. By incorporating the suspension under the turntable platform Basis has been able to reduce the size of the subchassis, gaining an advantageous “thickness-to-length ratio” for improved resonant behavior. We have named the suspension isolators “**Resonance Annihilators**” as they indeed perform the function of converting vibrational energy, on each side of the Annihilator, into heat energy. The close proximity of the tonearm to the adjacent isolator is a great advantage of the 2500 over any other turntable design: tonearm energy, created as the stylus traces the record groove, is effectively and immediately eliminated by this close isolator. The result is an immediate and direct sound, the hallmark of the suspended 2000 series turntables.

The 2500 turntable is the result of the same “**Basis Systems Approach**” of product development as other Basis products, where each individual subsystem contributing to the performance of the product is identified. Specific goals for the performance of each subsystem are developed based on the function of that system. Each system is designed, based on fundamental principles of physics, and then tested and optimized to perform its function to the highest level. Only after each system has demonstrated superior performance at its defined function is it approved for use in the final product. The result is a totally engineered product. When looking at other products it can be obvious that the designer has “fallen in love” with a certain aspect of a product. This may be a novel shape, a supposed isolator made of many layers of materials, or an unusual material. Such shortsighted, incomplete designs are all too common in the record player field and result in one-dimensional performance. With the **Basis Systems Approach** the buyer is assured of a **complete design**, a truly refined final product that will withstand the test of time by performing at a state of the art level for decades.

THE 2500/2800 SUBCHASSIS

The subchassis forms the base that holds all of the systems (drive, suspension, bearing/platter, tonearm mount) together. Ideally the subchassis should provide a rigid, non-resonant support for the turntable system components. The massive, two-inch thick stress-relieved acrylic 2500 subchassis indeed provides such an ideal support. As stated above, the compact length and width of the 2500, coupled with the high thickness of the acrylic, provide a high “thickness-to-length ratio” for great resonant control and tightly couple the suspension to the tonearm mount area for greater vibration-quenching capabilities.

The acrylic material is cast as a solid block and stress-relieved for stability. The material itself exhibits superb low-resonance characteristics without the need for problematic damping with elastomer materials. One needs only to cue the stylus directly onto the subchassis on 2500, turn the volume up, and tap the subchassis with various light objects such as toothpicks, small hex keys, small screwdrivers, and the like. You will note that the sound from the speakers is different for each object and “sounds” like the material of that object striking acrylic. Further, the sound is immediate and short without echoes, “overhang”, or ringing. Such a simple test, performed with other subchassis materials, will show the benefits of solid, thick, cast acrylic as used for a properly designed turntable subchassis. The 2500 subchassis provides the inert structure that a true, neutral, state of the art record player requires.

THE ISOLATION SYSTEM

Isolating the turntable from the listening environment is crucial for you to really hear the music on your record. Any less than total isolation reduces your turntable to an expensive tone control, with the sound becoming colored by feedback and by ineffective handling of energy fed into the turntable by the tonearm.

The compact, self-contained **Resonance Annihilator** assemblies of the 2500 house the **ultimate turntable suspension** system. This system totally isolates the turntable from vibration in the listening environment. It also damps the subchassis by turning vibrational energy, which has been fed into the subchassis by the tonearm, into heat energy. No other integral turntable suspension in the world performs the first function as effectively, and no other turntable suspension performs the second function at all.

Additionally, the Basis system provides **48db greater isolation** between the motor and the record-stylus system. This means that the 2500 delivers musical details with 48db greater freedom from detail-masking motor noise than any non-suspended turntable system.

The beneficiary of this superior energy-conversion isolation system is the listener. Musical details unfold with effortless certainty, conveying the emotion of the music with profoundly convincing realism, combining delicacy, immediacy, listenability, and explosive dynamics.

See the technical paper on Basis isolation systems for further discussion of the Basis suspension.

THE MOTOR

The 2500 Signature utilizes the most speed-stable type of motor available, the AC synchronous instrument motor. Basis modifies this motor with a custom magnet assembly (see our **Signature Series technical paper** for more details) to further smooth the power delivery and to assure a totally balanced rotating system.

The custom motor is mounted in its own housing, separated from the turntable by elastomer isolators, which are themselves isolated from the critical tonearm/platter systems by the 2500 fluid damped suspension system.

The result of these extreme measures, along with the best drive belt in the business (**See our Superbelt technical paper for more information on belts**) is a **totally speed stable, quiet, cog-free drive system**. Musical notes are unwaveringly solid, as expected; additionally, such exceptional levels of speed stability lend levels of coherence to the music and the recording soundfield that must be heard to be believed.

THE BEARING AND PLATTER SYSTEM

The 2500 features the Debut Signature Series platter and bearing. The bearing is unique in the history of record players. It is an oil-well design, the smoothest, quietest bearing type. A multi-component two tiered structure results in the very desirable but seemingly impossible reality of placing the center of gravity of the platter directly between the top and bottom bushings of the bearing. Thus, the lowest possible lateral forces are achieved. The result is lower friction and lower noise, which yields the silent backgrounds, low grain, utterly transparent, and effortless sound for which the 2500 is known.

A high number of parts and numerous machining and matching operations are required to achieve a bearing with the unique and outstanding characteristics of the Debut bearing. Contrasted to the inexpensive inverted bearings that most new turntable designs incorporate the Debut/2500 bearing is a great example of the Basis philosophy: **quality is never compromised.**

The platter support surfaces of the bearing are machined after the bearing has been otherwise finished. The platter is perfectly centered as a result of this proprietary process, giving the 2500 a solid sense of speed stability that must be heard. Matched thrust surfaces result in a life, which, with twenty years experience, is still unknown: no Debut bearings have ever worn out! With current production surfaces superior to those of the first Debuts in 1986 the new 2500 Signature owner is guaranteed a minimum of 25 years before any wear surfaces require attention.

The 2500 platter is lavished with the same attention to detail as the bearing. At 20+ pounds it is not only inert but is also absolutely round to a precision that is finer than one quarter of the thickness of a sheet of paper! Along with the perfect centering of the matched platter, the result is rotational accuracy of five-ten thousandths of an inch. Even without a feeling for just how impressive “.0005 inches accuracy” is, any listener will immediately hear the riveting clarity and speed stability that results.

The platter is a massive, two-inch thick design machined from stress-relieved acrylic. 32 individual weights are bonded into the platter to break up resonant modes and add to the rotational inertia. A precision aluminum insert is integrally machined for perfect platter/bearing matching with absolutely zero clearances. One look at the bottom of the Debut/2500 platter with its 32 weights and perfectly machined bearing interface and everyone agrees: this is a serious platter for a serious, perfectionist turntable.

THE VACUUM SYSTEM

The optional Basis Vacuum Record Hold-Down System applies a controlled level of negative pressure to the underside of the record guaranteeing a perfectly flat record that is so effectively coupled to the platter that record resonance is totally eliminated. Each record becomes a twenty-pound record! The true musical tonality and texture captured on the record are revealed, without any added coloration of vinyl resonance. No system, other than gluing the record to the platter, can result in such perfect resonance control. Tests of record outer rings, never considered at Basis due to resonance problems of their own as well as the danger they present to the stylus, show only a twenty percent coupling compared to the Basis Vacuum System.

The vacuum system restores even the most warped record to exact flatness, eliminating speaker damaging and power robbing “woofer pumping” due to record warps. Dynamics, imaging, musicality, bass power, and tracking ability are all brought to levels unreachable without the Basis Vacuum system.

The Basis conceived **HFLV** (high flow, limited vacuum) system combines rapid record pull-down with the gentlest possible handling of records. The **laboratory-grade vacuum regulator** and the **precision vacuum gauge** assure the user of consistent, gentle vacuum application while allowing total adjustability and flexibility. The remote pump allows flexibility in placement and assures silent operation of the system.

SPECIFICATIONS

Overall dimensions: 16.7" wide x 15" deep (including motor) x 5.5" tall (424mm x 381mm x 140mm).

Overall weight: 45 pounds (20.5 kilograms). Vacuum version: 65 pounds (29.5 kilograms).

Shipping weight: 52 pounds (23.6 kilograms). Vacuum version: 80 pounds (36 kilograms).

Color: Vacuum or non-vacuum version; Clear acrylic/silver trim (DIAMOND configuration), black acrylic/silver trim, black acrylic/black trim.