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M A S T E R R E F E R E N C E A M P L I F I E R



Product Information Guide

Master Reference Amplifier

The basic function of the Krell Master Reference Amplifier is to emulate a pure voltage and current source and to provide a superabundant amount of accurate power into any impedance load, virtually ensuring maximum performance from every speaker system.

Dan D'Agostino, Co-founder and C.E.O. of Krell® Industries, Inc., leads the high-end audio community in world-class amplifier designs. The Krell® Master Reference Amplifier is his latest design and is the best amplifier in the world today. The information in this product guide identifies the features and benefits of the Master Reference Amplifier. However, you will have to experience the sound of the Master Reference Amplifier to appreciate fully the unmatched performance that the Master Reference Amplifier delivers.

REFERENCE SOUND REDEFINED

The Master Reference Amplifier continues the tradition of excellence that began with the first Krell® amplifier, the KSA-100, in 1980. Shortly after its introduction the KSA-100 earned reference status in the industry and was used as a benchmark against which other amplifiers were judged. Since that time several of Dan D'Agostino's other Krell® designs—the KRS 100, KRS 200, and Audio Standard models—have advanced to become benchmark power

amplifiers. Now the Master Reference Amplifier delivers the highest levels of performance in subjective sound quality and objective measurement performance.

KRELL® VISION MEANS NEW INNOVATIVE TECHNOLOGIES

Features that make the Master Reference Amplifier the largest and most powerful amplifier include innovative technologies for controlling the vast power the amplifier generates and for handling CAST™, developed by Krell® for its unprecedented accuracy of signal transfer.

Tremendous Power Output. The Master Reference Amplifier brings a new level of performance to sound reproduction. Its tremendous power (exceeding 1,000 Watts into 8 Ohms, 2,000 Watts into 4 Ohms, 4,000 Watts into 2 Ohms, 8,000 Watts into 1 Ohm, and 16,000 Watts into .5 Ohm) gives the listener the freedom to enjoy unconstrained sound reproduction. The technological innovations that manage these large amounts of power are transparent to the user.

Software-Based Power Control. The Master Reference Amplifier sets a new standard for output drive, assuring that no matter how much power is needed, it will always be available and appropriate. Crucial to managing this power is software-based control, an onboard microprocessing module unique to the Master Reference Amplifier. This removable/interchangeable plug-in module, called a software key, can be individually programmed, allowing

the Master Reference Amplifier to be customized to match the impedance curve of any given loudspeaker. In addition, this microprocessor-controlled, fully active regulation enables the Master Reference Amplifier to develop full power into the most demanding loads, with no drop in current or voltage. Only the Master Reference Amplifier has this feature, which continually monitors and adjusts the power source to compensate for even the smallest variation in current or voltage.

CURRENT AUDIO SIGNAL TRANSMISSION (CAST™)

A new Krell® technology contributes to the Master Reference Amplifier's superiority and further enhances Master Reference Amplifier performance when connected to appropriately equipped Krell® source components. CAST™, Current Audio Signal Transmission, has been developed to send audio signals from component to component without introducing the negative effects of interconnect cables into the signal, i.e., loss of gain, reduced slew rate, and tonal coloration. Moreover, it reduces the number of total gain stages in the system and unifies each component in the system. CAST™ technology serves as a current gain interface and preserves current gain circuitry throughout the entire system. This has never been possible before CAST™ technology because conventional audio components and interconnect cables interface via voltage gain.

The preamplifier has high output impedance and delivers *current*, not voltage, to the amplifier. The amplifier's input senses and amplifies this current, which is not altered by interconnect cable's impedance characteristics because the cable impedance and reactive effects are reduced to at least a million times less than the total system impedance.

CAST™ ensures that interconnects cable lengths and characteristics do not degrade the signal quality. As a result, listeners can employ long cable runs and still maintain signal integrity. This means listeners can place components where they wish to place

them. CAST™ technology also renders obsolete the mysterious art of "matching" components and interconnect cables to achieve certain desired sonic results. CAST™ delivers accurate signal transmission without sonic coloration and takes the "guesswork" out of installing a reference system.

CORE TECHNOLOGIES—ENSURING MAXIMUM PERFORMANCE

The Master Reference Amplifier's ability to resolve detail, recreate holographic imaging, convey impact, and preserve tonal balance is unparalleled. The basic function of the Master Reference Amplifier is to emulate a pure voltage and current source and to provide a superabundant amount of accurate power into any impedance load, ensuring maximum performance from every speaker system. The core technologies applied in the Master Reference Amplifier focus on this goal.

KRELL® CURRENT MODE™ GAIN STAGES

The Krell Current Mode™ gain stages within the Master Reference Amplifier ensure high quality sound performance. These stages operate in current mode, rather than voltage mode amplification. This is accomplished by parallel operation of many small-signal transistors, which are selected specifically for their low self-noise, wide bandwidth, and high linearity. Krell Current Mode™ operation significantly boosts output drive capability. At the same time, the low impedance intrinsic to Krell Current Mode™ operation minimizes noise and preserves wide bandwidth operation.

SUSTAINED PLATEAU BIAS II™ CIRCUITRY

Class A operation is by far the most desirable for performance, but pure Class A can cause reliability problems along with environmental and economic ones. The Master Reference Amplifier employs Class A operation managed by Sustained Plateau Bias II™ circuitry.

In this remarkable circuitry, the amplifier bias point tracks the musical signal as well as the loudspeaker impedance so that the amplifier always remains in Class A bias for the signal level being amplified and the output impedance being driven. The result is that the Master Reference Amplifier delivers the lowest possible distortion under all conditions while delivering exemplary sound with incredible detail and resolution. Sustained Plateau Bias II™ technology sets a new standard for Class A operation and elevates the Master Reference Amplifier to a level of performance and output capability never before attained.

KRELL® PROPRIETARY OUTPUT DEVICES

The Master Reference Amplifier features an astounding total of 216 proprietary output devices. These devices, manufactured for Krell® by Motorola, are specially designed and tailored for sound reproduction and bear the Krell® name along with the Motorola logo.

TOTALLY BALANCED OPERATION

The Master Reference Amplifier is totally balanced from input to output. While balanced circuits ensure optimum signal to

noise ratios by rejecting noise, the primary advantage of *totally* balanced operation in the Master Reference Amplifier is loudspeaker control. The substantial power output combined with independent circuit paths amplifying the positive and negative output signals exercises absolute control over loudspeaker systems and forces them to generate sound that is precisely representative of the original signal.

NO COMPROMISE DESIGN

The innovative technology, advanced styling, and transparent user interface, exclusive features of the Master Reference Amplifier, spring from the genius of one man.

Dan D'Agostino directs and inspires Krell® to ensure that the Master Reference Amplifier is the best power amplifier in the world.

The Master Reference Amplifier is the new standard for power and performance. It joins a long line of exceptional audio components from the Leader in Audio Engineering—Krell®.



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