

A photograph showing a massive, dense stack of vinyl records. The records are arranged vertically on four wooden shelves. The spines of the records are visible, showing a wide variety of colors and designs, creating a textured, striped pattern across the entire image.

**Shure's new line of stereo cartridges
makes your music happen.**

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A Shure cartridge is the biggest improvement you can make in your stereo system.

A new Shure phono cartridge is the most significant improvement you can make to enhance the sound reproduction from your stereo system. Because dollar for dollar your Shure cartridge will deliver more sound quality than any other component.

Listen to your system. Are you disappointed with what you hear? Your turntable, receiver, even your speakers can't compensate for an inferior cartridge. Your cartridge is the only point at which the record is linked to the balance of your system.

For over 30 years Shure has been the uncontested leader in cartridge design and development. That expertise has resulted in an unmatched line of cartridges, ideal for today's recordings, including state-of-the-art digital, half-speed mastered and direct-to-disc. Each cartridge faithfully reproduces even the most difficult passages, getting every bit of sound out of them.

Shure's unique design has resulted in legendary trackability: the ability of the stylus tip to stay in constant contact with the record groove walls. This has been brought to near perfection by Shure for the sole purpose of enhancing your

listening enjoyment.

From the beginning of recorded stereo, millions have turned to Shure phono cartridges to get the most from their stereo systems. The reason is clear—Shure introduced the first moving magnet stereo cartridge and a host of other innovations including the MICROWAVE™ Styling Shank, Hyperelliptical Stylus Tip, the Tekiskopat, Stylus Shank, Dynamic Stabilizer, and Side-Guard Stylus Protection System. From the original M3D—the first high fidelity cartridge—to the V15 Type V-MR, Shure has been the pioneer and the acknowledged leader in phono cartridge technology.

There's a Shure cartridge for every system.

Shure offers a complete line of cartridges to satisfy every need—and every budget. Whether you're an audio hobbyist or a casual listener, you'll hear the difference a new Shure cartridge will make to your system today.



The point where music becomes reality.

Shure engineers have led the industry in pioneering the use of new materials and highly specialized production techniques—resulting in many new cartridge features exclusive to Shure. All help overcome record playback problems including "hot" signals, record warp, static electricity, distortion and record wear.

Shure's Hyperelliptical Diamond Stylus Tip represents a significant advancement in tip design and dramatically reduces both harmonic and intermodulation distortion. But we did not stop there—at what many considered state-of-the-art. In our search for even lower distortion we introduced the extraordinary Micro-Ridge Tip.

The Micro-Ridge Tip in the V15 Type V-MR represents the ultimate in low-distortion sound reproduction due to its flawless tracing ability. The smaller contact radius dimension of the Micro-Ridge Tip reduces distortion to an absolute minimum without increasing groove wall wear. It

traces the sharpest, deepest valleys in today's highly modulated records. And the tip is MASAR™-polished, an exclusive Shure process, which makes it even smoother to further reduce record wall friction, prevent groove wall damage and extend the life of your records.

The Dynamic Stabilizer is another patented Shure exclusive. This feature functions like a miniature shock absorber to compensate for record warps which might result in groove skipping, cartridge bottoming and signal wow. The stabilizer's conductive

fibers also simultaneously discharge static electricity from the record surface and sweep microscopic dust out of the record groove.

The Beryllium MICROWALL/Be™ Stylus Shank delivers incredibly accurate, high-frequency trackability with the lowest effective stylus mass of any stylus shank yet measured. This reduction of mass results in true, more refined sound with significantly less record and stylus wear. You'll hear highs that are crisper and bass that is more forceful than you've ever experienced. For possibly the first time, you'll enjoy the rich audio depth engineered on today's superdisc recordings.

The unique design and construction of the MICROWALL/Be™ Stylus Shank assures flat frequency response as well as greater and more uniform channel separation. The Vertical Tracking Angle has been accurately matched to today's recordings for even lower distortion than ever.

Shure's patented Side-Guard Stylus Protection System protects your stylus from damage by guiding it into a protected area in the stylus grip when it is accidentally bumped against a record or the edge of the turntable platter.

When it comes to hearing all the music cut into your records—clear highs, explosive bass—unprecedented tracking of the most acrobatic grooves—the V15 Type V Series and the MI140IE Cartridges are the very point where your music becomes reality.



Micro-Ridge Tip



Dynamic Stabilizer



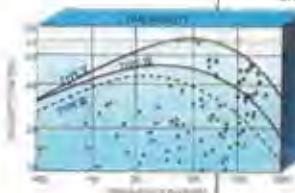
Side Guard





The finest achievement in sound reproduction. The V15 Type V-MR.

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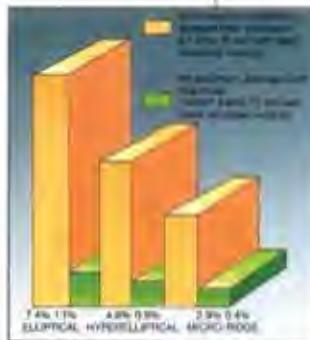
The V15 Type V is already acknowledged to be the finest cartridge available today. The new V15 Type V-MR is even more remarkable.

The technological breakthrough of the Micro-Ridge Tip offers the ultimate in low distortion sound reproduction, through its highly accurate tracing ability. Coupled with the incredible trackability of the revolutionary new high stiffness, low mass Beryllium MICROWALL/Be™ Stylus Shank, it produces the pinnacle of state-of-the-art cartridge technology. The V15 Type V-MR also features Shure's exclusive Dynamic Stabilizer and the unique Side-Guard Stylus Protection System.

Designed for the standard $\frac{1}{2}$ " mount tone arm, the V15 Type V-MR brings together important new construction features, performance capabilities, and high technology instrumentation. It includes a Duo-Point Alignment Gauge, leveling-alignment stylus, data booklet, and an individual computer print-out which provides the exact tested response of your particular cartridge. A stylus cleaning brush, screwdriver and mounting hardware are included. Also, Shure will send you a free copy of their \$15 TTR117 "Trackability Test Record."

V15 Type V-B. The critically acclaimed V15 Type V with Shure's exclusive Hyper elliptical Tip and MICROWALL/Be™ Stylus Shank, includes a stylus cleaning brush, leveling-alignment stylus, data booklet and an individual computer print-out, screwdriver and mounting hardware.

V15 Type V-P. Specifically designed for ultimate performance in P-mount tone arms, the V15 Type V-P includes a stylus cleaning brush, data booklet, an individual computer print-out and screwdriver. Not equipped with Dynamic Stabilizer.



SPECIFICATIONS

Tracking Force:

Force At The Stylus Tip	Total Tone Arm Setting With Dynamic Stabilizer Operated
Optimum: 10 mN (1.0 gram)	15 mN (1.5 grams)
Maximum: 12.5 mN (1.25 grams)	17.5 mN (1.75 grams)

Force Exerted by Dynamic Stabilizer: 5 mN (0.5 grams)

Tip Geometry (Typical): Micro-Ridge 3.8µ x 75µ
(0.15 mil x 3.0 mil long contact)

**Trackability at 10 mN (1 gram) Tracking Force
(Typical in cm/sec peak velocity):**

400 Hz: 30 cm/sec	5 kHz: 80 cm/sec
1 kHz: 46 cm/sec	10 kHz: 60 cm/sec

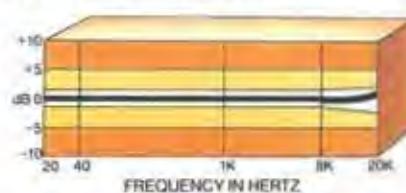
Vertical Tone Arm Resonance: Less than 0 dB rise at 14 Hz in SME Series III Tone Arm (without SME damper)

Channel Balance: Within 1.5 dB

Channel Separation: 1 kHz, 25 dB or greater,
10 kHz, 18 dB or greater

Output Voltage (Typical): 3.2 mV RMS at 1 kHz at 5 cm/sec
peak velocity

Frequency Response Limits:

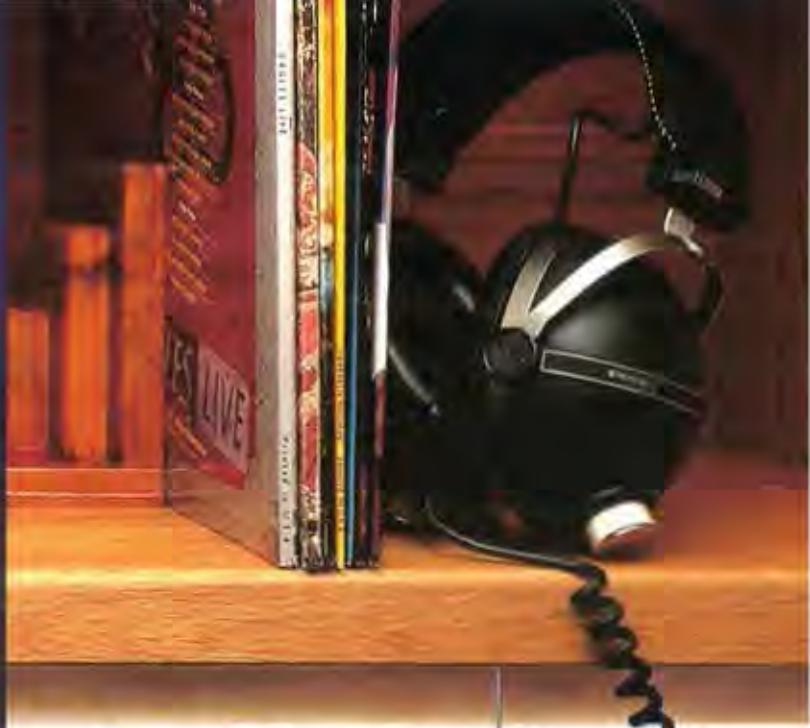


Recommended Load: 47 kΩ in parallel with 250 pF includes tone arm wiring, connecting cables, and preamplifier input. Capacitance loading from 100 pF to 400 pF will cause negligible change from the recommended 250 pF loading.

Resistance (Typical): 8 ohms, dc

Inductance (Typical): 330 nH at 1 kHz

Cartridge Weight: V15 Type V-MR: 6.6 grams
V15 Type V-B: 6.6 grams
V15 Type V-P: 5.9 grams



For the sophisticated listener with a sophisticated system. The ML140HE.

SPECIFICATIONS

Tracking Force:

Force At The Stylus Tip	Total Tone Arm Setting With Dynamic Stabilizer Operating
Optimum: 10 mN (1.0 gram)	15 mV (1.5 grams)
Maximum: 12.5 mN (1.25 grams)	17.5 mV (1.75 grams)

Force Exerted by Dynamic Stabilizer: 5 mN (0.5 gram)**Tip Geometry (Typical):** Hyperelliptical 5µ x 38µ
(0.2 mil x 1.5 mil) long contact**Trackability at 10 mN (1 gram) Tracking Force
(Typical in cm/sec peak velocity):**

400 Hz: 29 cm/sec	5 kHz: 60 cm/sec
1 kHz: 42 cm/sec	10 kHz: 90 cm/sec

Vertical Tone Arm Resonance: Less than 0.01" seal
14 Hz in SME Series III Tone Arm (without SME damper)**Channel Balance:** Within 2.0 dB**Channel Separation:**

1 kHz: 25 dB or greater
10 kHz: 15 dB or greater

Output Voltage (Typical): 4.0 mV RMS at 1 kHz at 5 cm/sec
peak velocity**Frequency Response:** Essentially flat 20–22,000 Hz**Recommended Load:** 47 kΩ in parallel with 250 pF (includes tone arm wiring, connecting cables, and preamplifier input).
Capacitive loading from 100 pF to 400 pF will cause negligible change from the recommended 250 pF loading.**Resistance (Typical):** 1000 ohms, dc**Inductance (Typical):** 300 nH at 1 kHz**Cartridge Weight:** 1.5 grams

Shure's new slim-line high efficiency cartridge body provides an extremely flat frequency response, which preserves the recorded tonal balance, giving you sound reproduction exactly as it was recorded. This is because the cartridge body more efficiently converts the magnetic flux generated by the stylus shank magnet into an electrical signal. Its exclusive Hyperelliptical Tip and Beryllium MICROWALL/Be™ Stylus Shank provide for outstanding tracking ability.

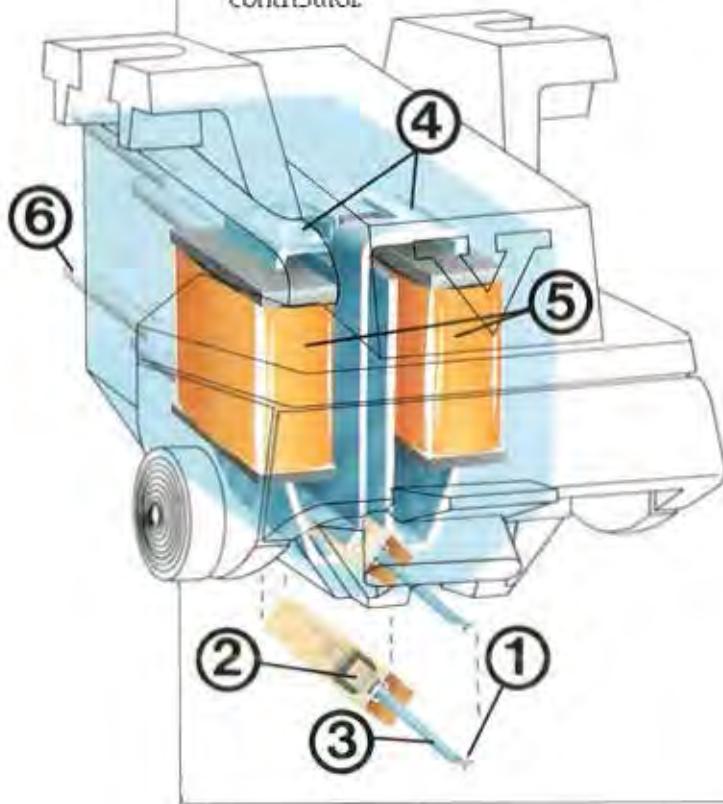
The ML140HE also features the exclusive Dynamic Stabilizer, Side-Guard Stylus Protection System, and MASAR™-polished stylus tip. Accessories include a stylus cleaning brush, overhang card gauge, leveling alignment stylus, data booklets plus a screwdriver and mounting hardware. Fits standard ½" mount tone arm. The outstanding sound reproduction of the ML140HE brings superb sound home to you.



Do you know how important a cartridge is?

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True high fidelity sound reproduction begins with the phono cartridge. It is the only point at which the recording is linked to the rest of your stereo system. Your system could have the most sophisticated turntable, receiver and speakers but reproduce poor quality sound if the cartridge is not functioning correctly and accurately. While a cartridge may be the smallest component in your system, in terms of sound it's the biggest contributor.



What goes on inside a cartridge.

The diagram on the left illustrates the basic structure of a Shure moving magnet cartridge. (1) Sound actually starts when the diamond stylus tip (needle) rides in the record groove, tracing the tiny waves of the groove wall. The motion of this tip moves a (2) magnet. The magnet and tip are connected by the (3) stylus shank. Proper design of the stylus shank is critical for high fidelity performance. Inside the cartridge body, (4) pole pieces surround the magnet. (5) A coil of pure copper wire wraps around one leg of each pole piece. As the magnet moves, it distributes the magnetic field among the pole pieces. Magnetic energy flows into the pole pieces and through the center of the copper coil producing an electrical signal in the coil. This signal corresponds to the motion of the magnet and tip. Finally, this electrical signal is transmitted to the other components of your stereo system by terminal pins (6) bonded to the ends of the coils.

A cartridge is where your music begins.

The transfer of music from your record to your amplifier and then to your speakers begins with the stylus assembly, the most critical component in your stereo. The diagram on the right illustrates how sound becomes music. (1) The stylus tip (needle) traces the groove on the record, picking up recorded signals. (2) As the tip follows the groove it modulates the stylus shank moves a magnet through a field creating an electric signal. (3) This signal is transmitted through the tone arm to the amplifier. (4) The amplifier then augments the electric signal and directs it to (5) the speakers which then decode the electric signal and convert it into music.



Any error produced or transmitted by your cartridge is not correctable in your stereo system. That's why it's critical to choose the right cartridge. One that's capable of picking up all the sound engineered into today's records and can compensate for common playback problems like record warp. If your stylus tip loses contact with the record groove for even a fraction of a second, the signal will be distorted. This loss of contact may also result in groove wall damage that can permanently harm your records.

Why a Shure cartridge?

No other manufacturer in the world knows more about phono cartridge design than Shure. When you purchase a Shure cartridge you're assured of unmatched quality.

Literally thousands of hours go into the creation of a Shure cartridge. Preproduction testing involves round-the-clock procedures with state-of-the-art precision equipment. Ingenious design refinements and unique new features are evaluated by advanced computer technology and real world in-use situations. All cartridges are regularly subjected to a battery of rigorous environmental, physical, electrical and extended life tests.

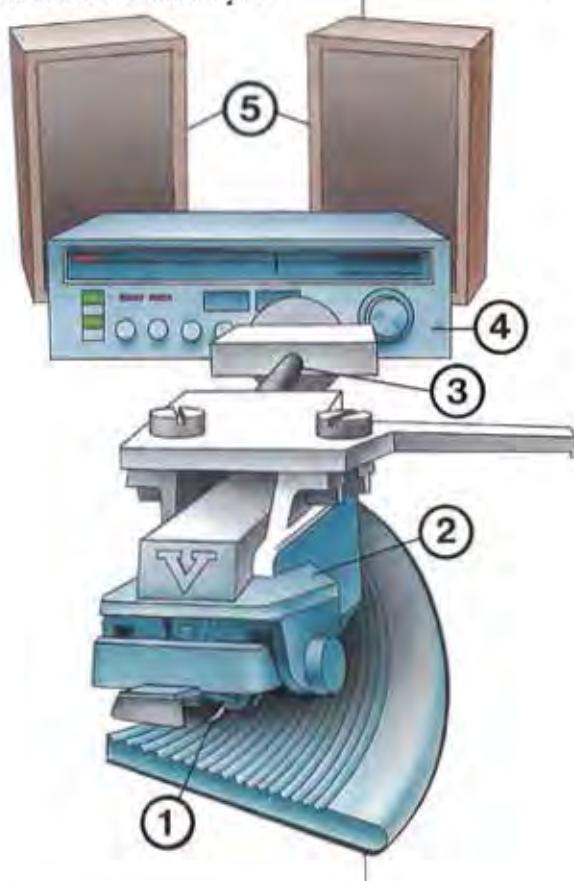
Such attention to detail is rare. However, at Shure this is standard practice because it's the only way of assuring you the quality and reliability of a product you can depend on for years to come.

Whether your turntable has a tone arm with a standard $\frac{1}{2}$ " mount head shell or a tone arm with the new P-mount direct plug-in connector, Shure has the right cartridge in a compatible form. That's because many of Shure's new cartridges feature a lightweight, rigid, snap-on adapter to fit your present

turntable needs or a turntable you may buy in the future.

Whether you own a sophisticated stereo system or a basic one, Shure's line of cartridges is especially designed to help you get the most listening enjoyment out of it. A Shure cartridge may look small but it makes your music happen.

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The superior cartridge for the better stereo system. The ML120HE.

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The sleek, slim contemporary design of this cartridge is functional as well as stylish. It reproduces music just the way it was recorded for outstanding listening enjoyment.

Its carefully contoured diamond tip (Hyperelliptical) follows the dynamics of the record groove for accurate tracing ability. The Dynamic Stabilizer compensates for record warps to prevent the tip from losing contact with the record groove. It also sweeps microscopic dust out of the record groove and removes static electricity from the record surface. The built-in Side-Guard Stylus Protection System prevents accidental stylus damage.

Accessories include a stylus cleaning brush, overhang alignment card, leveling alignment stylus, data booklet, screwdriver and mounting hardware. Designed for the standard $\frac{1}{2}$ " mount tone arm.

Enjoy music the way it was meant to be—with the ML120HE.

SPECIFICATIONS

Tracking Force at the Stylus Tip:

Optimum: 10 mN (1.0 gram)

Minimum: 2.5 mN (0.25 grams)

Force Exerted by Dynamic Stabilizer: 5 mN (0.5 grams)

Trackability at 10 mN (1 gram) Tracking Force:

(Typical in cm/sec peak velocity):

450 Hz: 24 cm/sec 5 kHz: 33 cm/sec

1 kHz: 35 cm/sec 10 kHz: 25 cm/sec

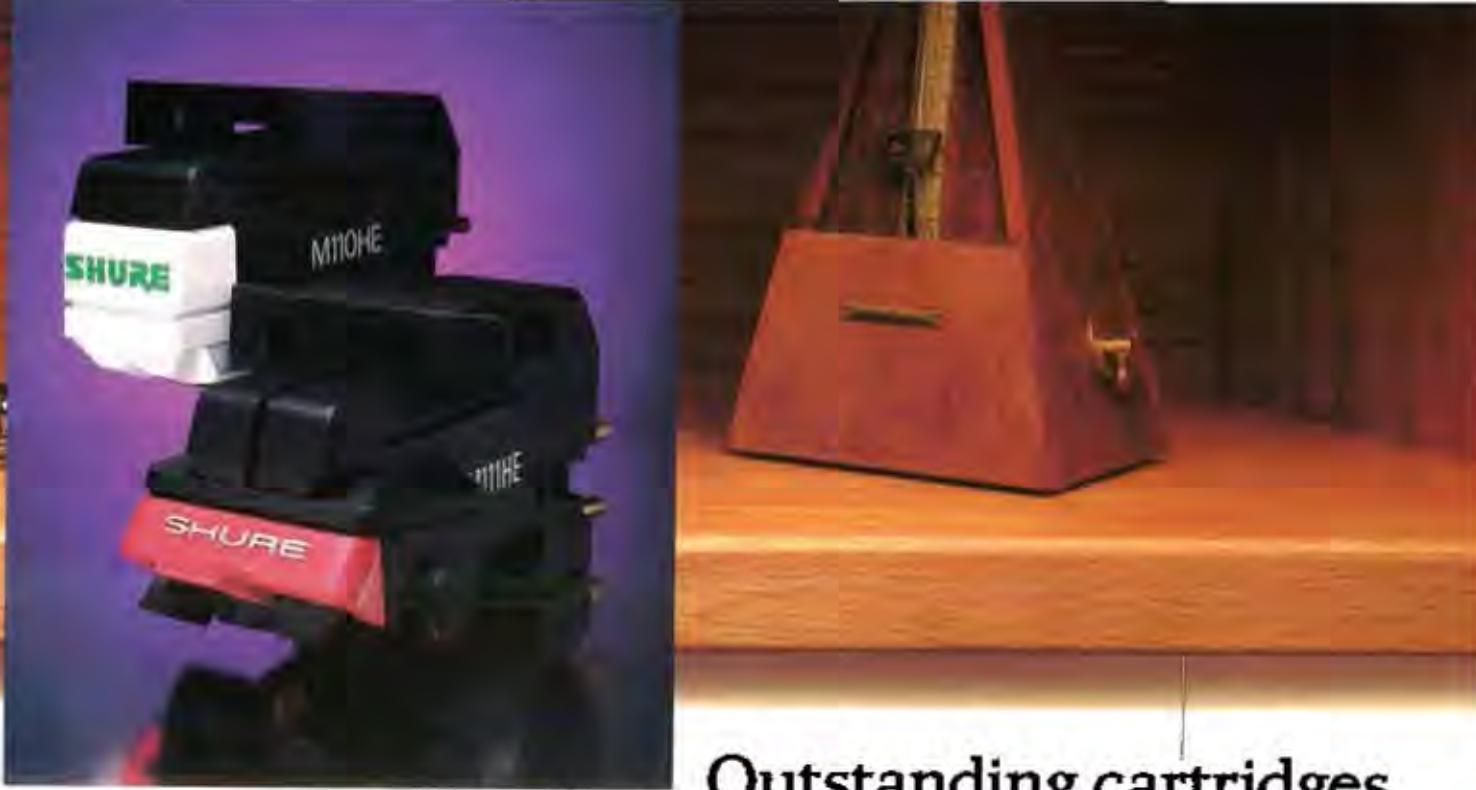
Frequency Response: Essentially flat 20–20,000 Hz

Channel Balance: Within 2.0 dB

Channel Separation: 1 kHz: 25 dB or greater 10 kHz: 15 dB or greater

Output Voltage (Typical): 4.0 mV RMS at 1 kHz at 5 cm/sec peak velocity

Net Weight: 4.5 grams



Outstanding cartridges for the basic system. The M111HE and M110HE.

SPECIFICATIONS

Tracking Force at the Stylus Tip:

Optimum: 12.5 mN (.25 grams)
Maximum: 15.0 mN (.32 grams)

Force Exerted by Dynamic Stabilizer (M111HE):

5 mN (0.5 grams)

Trackability at 12.5 mN (1.25 grams) Tracking Force (Typical in cm/sec peak velocity):

400 Hz: 30 cm/sec
1 kHz: 44 cm/sec
10 kHz: 31 cm/sec

Frequency Response:

Essentially flat 20 - 20,000 Hz

Channel Balance:

With ± 2.0 dB

Channel Separation:

1 kHz: ± 2 dB typical

Output Voltage (Typical):

4.0 mV RMS at 1-Hz at 5 cm/sec peak velocity

Net Weight (with mounting adapter, screw and nut):

M111HE: 8.1 grams; also P-mount compatible
M110HE: 7.3 grams; also P-mount compatible

Relax and enjoy your favorite music at its best. The M111HE and M110HE offer you brilliant clarity in sound for outstanding listening enjoyment. They include design technology and performance that are superior to comparably priced cartridges from other manufacturers.

These cartridges accurately reproduce even the most difficult music passages. Their critically accurate tracking is the result of Shure's uniquely constructed heat-treated telescoped stylus shank and exclusive precision-crafted Hyperelliptical Diamond Tip.

The M111HE also has Shure's exclusive Dynamic Stabilizer shock absorber. Both models contain a built-in Sider-Guard Stylus Protection System to protect your stylus from accidental damage. The M110HE also features a slide-on stylus guard.

These cartridges can be used with the standard $\frac{1}{2}$ " mount tone arm or most P-mount tone arm systems.*

Accessories include a stylus cleaning brush plus a screwdriver and mounting hardware.

Whether you choose the M111HE or M110HE, you'll find either is a modest price to pay for big sound.

*Note: The M111HE is not recommended for use in non-adjustable P-mount tonearms. For these tonearms we recommend the M110HE.



A lot of sound for not a lot of money. The M105E and M104E.

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The M105E and M104E are ideally suited for the person who needs outstanding sound performance and wants to upgrade their system on a limited budget.

These cartridges capture and recreate sound with an elliptical shaped diamond stylus tip and an aluminum alloy shank to faithfully reproduce your favorite music.

The M105E features a Destaticizer Brush to clean dust from record grooves and remove static electricity from the record surface. And the built-in Sio-Guard Stylus Protection System helps prevent accidental stylus damage. The M104E features a slide-on stylus guard.

Either cartridge is compatible with 4" mount tone arms or most P mount tone arm systems. Both include a screwdriver and mounting hardware and the M105E also includes a stylus cleaning brush.

You'll find no other cartridges offer so much for so little as the M105E and M104E.

SPECIFICATIONS

Tracking Force at the Stylus Tip:

Optimum: 12.5 mN (1.25 grams)
Max. run: 15.0 mN (1.5 grams)

Force Exerted by Destaticizer (M105E):

5 mN (0.5 grams)

Trackability at 12.5 mN (1.25 grams) Tracking Force (Typical in cm/sec peak velocity):

M105E: 400 Hz: 25 cm/sec
1 kHz: 36 cm/sec, 10 kHz: 20 cm/sec
M104E: 400 Hz: 24 cm/sec

Frequency Response: Essentially flat 20-20,000 Hz

Channel Balance: Within 2.0 dB

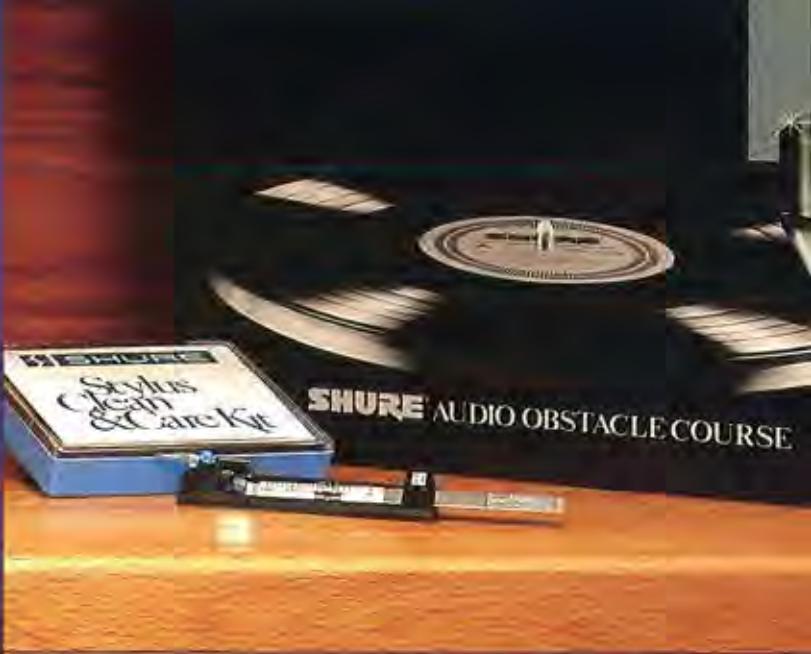
Channel Separation: 1 kHz: 25 dB typ cal

Output Voltage (Typical):

M105E: 4.7 mV RMS at 1 kHz at 5 cm/sec peak velocity
M104E: 5.0 mV RMS at 1 kHz at 5 cm/sec peak velocity

Net Weight (with mounting adapter, screw and nut):

M105E: 7.5 grams; 4" mount compatible
M104E: 7.3 grams; 4" mount compatible



Economy cartridges for the economy system. The M99E and M92E.

The M99E and M92E offer excellent sound performance within their price range. Why gamble on other budget priced cartridges when Shure quality is still within your grasp?

The elliptical shaped stylus tip (coated with an aluminum alloy) stylus shank traces the groove of your records for a difference you can hear.

Both cartridges feature a slide-on stylus guard and fit on P-mount tone arm systems or on 1/2" mount tone arms when you use the adapter provided.

Accessories include all the necessary mounting hardware.

SPECIFICATIONS

Tracking Force at the Stylus Tip:

Optimum: 12.5 mN (1.25 grams)
Maximum: 16.0 mN (1.6 grams)

Trackability at 12.5 mN (1.25 grams) Tracking Force (Typical) in cm/sec peak velocity:

400 Hz: 24 nm/sec

Frequency Response: M99E: 20–20,000 Hz M92E: 20–18,000 Hz

Channel Balance: Within 2.0 dB

Channel Separation: 1 kHz: 20 dB typical

Output Voltage (Typical): 5.0 mV RMS at 1 kHz at 5 cm/sec peak velocity

Net Weight (with mounting adapter, screw and nut):

7.3 grams; also 2-inch Nut compatible

Shure Accessories.

Stylus Force Gauge. Allows precise setting of optimum stylus force for maximum trackability and sharply reduced wear on records and stylus tip. Model SFG-2.

Trackability Test Records. Developed and produced by Shure to help evaluate cartridge performance. This is done by analyzing the cartridge's most important performance characteristic—trackability. Available are the "TTR103 Trackability Test Record," and the "TTR117 Audio Obstacle Course Test Record."

Stylus Cleaning Kit. Removes built-up dust and dirt from the stylus surface to prolong the life of your cartridge and your favorite records. Includes cleaning fluid, stylus cleaning brush, and a magnifying glass for stylus inspection. Model SK-1.

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SHURE INC., North Haven, Connecticut, U.S.A.
U.S. Patents

Serial 3,896,419; 4,194,749; 4,270,750; 4,275,008; D225,095;
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D243,433; D232,028; D234,004; D237,676; D230,795; D235,366
Other patents pending.



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