# THE PREMIER FAMILY OF STEREO SOUND REPRODUCERS

SHURE

STEREO DYNETIC®

HIGH FIDELITY PHONO CARTRIDGES

TONE ARMS

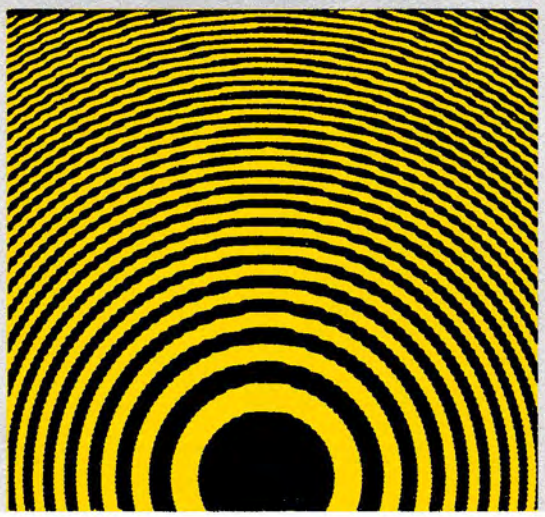
STYLI

HEADPHONE AMPLIFIERS

SHURE

# OVERWHELMING CHOICE OF CRITICS

AND INDEPENDENT HIGH FIDELITY AUTHORITIES . . . THE WORLD STANDARD OF PERFECTION

## The all-important source of sound

True high fidelity sound re-creation begins at the *source of sound*. Just as a camera is no better than its lens, a phonograph system is no better than its cartridge. This breath-takingly precise miniaturized electric generator (that's really what it is) must carry the full burden of translating the miles-long stereo record groove into usable electrical impulses . . . and should do this without adding or subtracting from what is on the recording. Knowing this, Shure quality standards are rigidly maintained at the highest levels.

the most important advance
in phono cartridges
nce the advent of stereo

# THE SHURE V-15 TYPE II

. . . A NEW GENRE OF CARTRIDGE, ANALOG-COMPUTER DESIGNED, AND MEASURED AGAINST A NEW AND MEANINGFUL INDICATOR OF TOTAL PERFORMANCE:

## TRACKABILITY

The radically different V-15 Type II heralded a new epoch in high performance cartridges and in the measurement of their performance. We call it the era of high **Trackability.** Because of it, all your records will sound better and, in fact, you will hear some recordings tracked at light forces for the first time without distortion.

### THE PROBLEM:

While audiophiles prefer minimum tracking forces to minimize record wear and preserve fidelity, record makers prefer to cut recordings at maximum levels with maximum cutting velocities to maximize signal-to-noise ratios. Unfortunately, some "loud" records are cut at velocities so great that nominally superior styli have been unable to track some passages: notably the high and midrange transients. Hence, high level recordings of orchestral bells, harpsichords, pianos, etc., cause the stylus to part company with the wildly undulating groove (the stylus actually ceases to track). At best, this produces an audible click; at worst, sustained gross distortion and outright noise. The "obvious" solution of increasing tracking force is impractical because this calls for a stiffer, less compliant stylus system to support the greater weight—and a stiffer stylus system will not track these transients or heavy low-frequency modulations, to say nothing of the heavier force accelerating record and stylus wear to an intolerable degree.

**Shure has collected scores of these demanding high level recordings and painstakingly and thoroughly analyzed them.** It was found that in some cases (after only a few playings) the high velocity high or midrange groove undulations were "shaved" off or gouged out by the stylus . . . thus eliminating the high fidelity. Other records, which were offhandedly dismissed as unplayable or poor pressings were found to be neither. They were simply too high in recorded velocity and, therefore, untrackable by existing styli.

Most significantly, as a result of these analyses, Shure engineers established the maximum recorded velocities of various frequencies on quality records and set about designing a cartridge that would track the entire audible spectrum of these maximum velocities at tracking forces of less than 1½ grams.

### ENTER THE COMPUTER:

The solution to the problem of true trackability proved so complex that Shure engineers designed an analog-computer that closely duplicated the mechanical variables and characteristics of a phono cartridge. With this unique device they were able to observe precisely what happened when you varied the many factors which affect trackability: inertia of tip end of the stylus or the magnet end of the stylus; the compliance between the record and the needle tip, or the compliance of the stylus shank, or the compliance of the bearing; the viscous damping of the bearing; the tracking force; the recorded velocity of the record, etc., etc. The number of permutations and combinations of these elements, normally staggering, became manageable. Time-consuming trial-and-error prototypes were eliminated. Years of work were compressed into months. After examining innumerable possibilities, new design parameters evolved. Working with new materials in new configurations, theory was made fact.

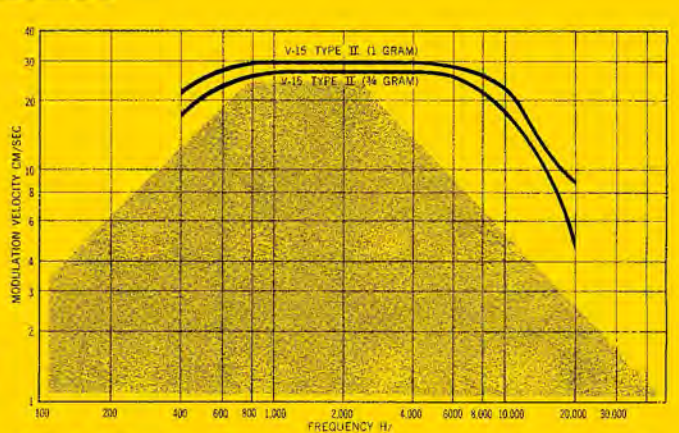
**Thus, the first analog-computer-designed, superior trackability cartridge was born: the Shure "SUPER-TRACK" V-15 TYPE II.** It maintains contact between the stylus and record groove at tracking forces from ¾ to 1½ grams, throughout and beyond the audible spectrum (20-25,000 Hz), at the highest velocities encountered in quality recordings. It embodies a bi-radial elliptical stylus (.0002 inch x .0007 inch).

It also features an ingenious "flip-action" built-in stylus guard.

It is clean as the proverbial hound's tooth and musical as the storied nightingale.

### TRACKABILITY AS A NEW SPECIFICATION

This chart depicts the new performance specification of **trackability.** Unlike the oversimplified and generally misunderstood design parameter specifications of compliance and mass, trackability is a measure




of total performance. The chart shows frequency across the bottom, and modulation velocities in CM/SEC up the side. The grey area represents the maximum **theoretical** limits for cutting recorded velocities; however, in actual practice many records are produced which exceed these theoretical limits. The smoother the curve of the individual cartridge being studied and the greater its distance above the grey area, the better the trackability. The trackability of the Shure V-15 Type II is shown by the top (solid black) lines.

### SPECIFICATIONS

Trackability at 1 gram tracking force using a Shure/SME Arm:
22 CM/SEC at 400 Hz — 30 CM/SEC at 5,000 Hz
30 CM/SEC at 1,000 Hz — 22 CM/SEC at 10,000 Hz

Frequency Response: From 20 to 25,000 Hz

Output Voltage: 3.5 mv per channel at 1,000 Hz at 5 CM/SEC

Channel Separation: Over 25 db at 1,000 Hz
Over 17 db at 500 to 10,000 Hz

Channel Balance: Output from each channel within 2 db

Stylus: VN15E Bi-Radial Elliptical Stylus, Diamond Tip.
.0007 inch (17.8 microns) frontal radius;
.0002 inch (5 microns) side contact radii;
.0010 inch (25 microns) wide between record contact points
VN7—.0007 inch diameter, spherical stylus

Tracking Force: ¾ to 1½ grams

Recommended Load Impedance: Nominally 47,000 ohms (per channel). Can be used up to 70,000 ohms with almost inaudible change in frequency response.

Input Capacitance: 400-500 Pico-Farads per channel, including arm cable

Inductance: 720 millihenries

D.C. Resistance: 630 ohms

Terminals: 4 terminals (with loop pinjack for 3-terminal connection)

Weight: Net weight—6.8 grams

Mounting: Standard ½ inch (12.7 mm) mounting centers.

MODEL V-15 TYPE II SUPER-TRACK CARTRIDGE. . . . . $67.50

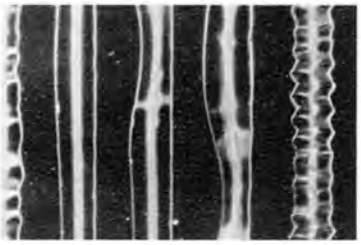
MODEL VN15E ELLIPTICAL STYLUS fits V-15 Type II or V-15 II-7 . . . . . $27.00

MODEL V-15 II-7 SUPER-TRACK CARTRIDGE WITH .0007" SPHERICAL STYLUS (Available October, 1968) . . . . . $62.50

MODEL VN7 STYLUS—.0007" DIAMOND STYLUS fits V-15 Type II or V-15 II-7 Cartridges (Available October, 1968) . . . . . $24.00

# more about trackability


The photomicrograph above portrays an errant, hard-to-track castanet sound in an otherwise conservatively modulated recording. The somewhat more heavily modulated grooves shown below are an exhilarating combination of flutes and maracas with a low frequency rhythm complement from a recording cut at sufficiently high velocity to deliver precise and definitive intonation, full dynamic range, and optimum signal-to-noise ratio. Neither situation is a rarity, far from it. They are the very essence of today's highest fidelity recordings. But when played with an ordinary "good" quality cartridge, the stylus invariably loses contact with these demanding grooves—the castanets sound raspy, while the flute and maracas sound fuzzy, leaden, and "torn apart." Increasing tracking weight to *force* the stylus to stay in the groove will literally shave off the groove walls. Only High Trackability cartridges will consistently and effectively track all the grooves in today's recordings at light, record-saving pressures . . . even with cymbals, orchestral bells, and other difficult to track instruments. They will preserve the fidelity and reduce distortion from all your records, old and new.



# HIGH TRACK AT MODERAT

NEW

## EASY-MOUNT SERIES OF HIGH TRACKABILITY CARTRIDGES


MODEL M91E
HI-TRACK ELLIPTICAL
¾ to 1½ grams tracking

$49.95

Optimized design parameters for trackability second only to the incomparable V-15 Type II.

### SPECIFICATIONS FOR M91E

Trackability at 1 gram tracking force using a Shure/SME Arm:
- 20 CM/SEC at 400 Hz
- 28 CM/SEC at 1,000 Hz
- 25 CM/SEC at 5,000 Hz
- 18 CM/SEC at 10,000 Hz

Frequency Response: From 20 to 20,000 Hz

Output Voltage: 5.0 mv per channel at 1,000 Hz at 5 CM/SEC

Channel Separation: Over 25 db at 1,000 Hz

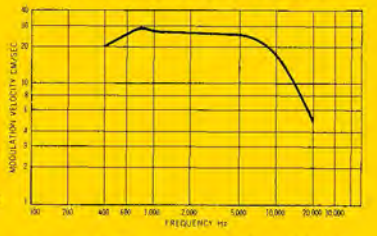
Channel Balance: Output from each channel within 2 db

Stylus: N91E Elliptical diamond tip
- .0007 inch (17.8 microns) frontal radius
- .0002 inch (5 microns) side contact radii
- .0010 inch (25 microns) wide between record contact points

Tracking Force: ¾ to 1½ grams

Recommended Load Impedance: Nominally 47,000 ohms (per channel). Can be used up to 70,000 ohms with almost inaudible change in frequency response.

**TRACKABILITY CHART***




Input Capacitance: 400-500 Pico-Farads per channel, including arm cable.

Inductance: 720 millihenries

D.C. Resistance: 630 ohms

Terminals: 4 terminals

Weight: 6 grams

Mounting: Snap-in type; standard ½" (12.7 mm) Mounting centers on retaining clip

MODEL M91E Hi-Track Cartridge ..... $49.95

MODEL N91E Elliptical Replacement Stylus ..... $24.50


LOWEST COST
LIGHT TRACKING
HIGH TRACKABILITY
CARTRIDGE

MODEL M75E
HI-TRACK ELLIPTICAL
¾ to 1½ grams tracking

$39.95

### SPECIFICATIONS FOR M75E

¾ to 1½ grams tracking and Bi-Radial Elliptical Stylus. Trackability specifications that assure you this cartridge will track grooves cut to the theoretical limits of recording/cutting velocity . . . throughout the audible spectrum.

Trackability at 1 gram tracking force using a Shure/SME Arm:
- 18 CM/SEC at 400 Hz
- 25 CM/SEC at 1,000 Hz
- 14 CM/SEC at 10,000 Hz

Frequency Response: From 20 to 20,000 Hz

Output Voltage: 6.2 mv per channel at 1,000 Hz at 5 CM/SEC

Channel Separation: More than 25 db at 1,000 Hz

Stylus: N75E Elliptical with diamond tip
- .0007 inch (17.8 microns) frontal radius
- .0002 inch (5 microns) side contact radii
- .0010 inch (25 microns) wide between record contact points

Tracking Force: ¾ to 1½ grams

Recommended Load Impedance: 47,000 ohms (per channel)

Inductance: 720 millihenries

D.C. Resistance: 630 ohms

Terminals: 4 terminals

Weight: 6 grams

Mounting: Standard ½" (12.7 mm) Mounting centers

MODEL M75E Hi-Track Cartridge ..... $39.95

MODEL N75E Bi-Radial Elliptical Stylus ..... $20.00

# ABILITY CARTRIDGES
# E PRICES

The trackability charts for each of these cartridges tell you that they are truly from the new generation of cartridges that deliver high trackability at light tracking forces—yet they are surprisingly modest in cost. Each also includes a retractile stylus to prevent record damage, and Bi-Radial Elliptical Stylus configuration. Manufactured and tested under Shure's critical quality control program.

## NEW! EASY-MOUNT DESIGN

New clip-on easy-mount design cuts cartridge mounting time in half. First you mount the specially-designed retaining clip in the tone arm head—there's plenty of room for your fingers and screwdriver. Then you connect your leads and simply snap the cartridge into the retaining clip. Alignment is positive and precise. Stylus replacement is greatly simplified, too.


## MODEL M92E
HI-TRACK ELLIPTICAL
¾ to 1½ grams tracking
$44.95

## MODEL M92G
HI-TRACK SPHERICAL
¾ to 1½ grams tracking
$39.95

Designed for use in finest quality manual and automatic turntables.

### SPECIFICATIONS FOR M92E & M92G

Trackability at 1 gram tracking force using a Shure/SME Arm:
- 18 CM/SEC at 400 Hz
- 26 CM/SEC at 1,000 Hz
- 25 CM/SEC at 5,000 Hz
- 15 CM/SEC at 10,000 Hz

Frequency Response: From 20 to ~,000 Hz

Output Voltage: 6.2 mv per channel at 1,000 Hz at 5 CM/SEC

Channel Separation: More than 25 db at 1,000 Hz

Channel Balance: Output from each channel within 2 db

Stylus: N92E Elliptical with diamond tip
- .0007 inch (17.8 microns) frontal radius
- .0002 inch (5 microns) side contact radii
- .0010 inch (25 microns) wide between record contact points

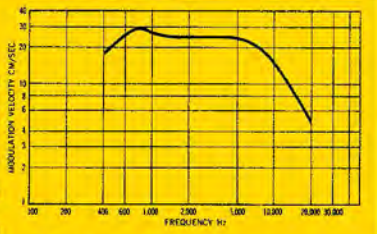
N92G—.0006 inch Radius (15.2 microns) Spherical Diamond Tip

Tracking Force: ¾ to 1½ grams

Recommended Load Impedance: Nominally 47,000 ohms (per channel). Can be used up to 70,000 ohms with almost inaudible change in frequency response.

Input Capacitance: 400-500 Pico-Farads per channel, including arm cable.

### TRACKABILITY CHART*




Inductance: 720 millihenries

D.C. Resistance: 630 ohms

Terminals: 4 terminals

Weight: 6 grams

Mounting: Snap-in type; standard ½" (12.7 mm) Mounting centers on retaining clip

MODEL M92E Hi-Track Cartridge ..... $44.95

MODEL N92E Elliptical Replacement Stylus ..... $22.50

MODEL M92G Hi-Track Cartridge with .0006" Spherical stylus. ¾ to 1½ grams. (Available October, 1968).. $39.95

MODEL N92G Spherical Replacement Stylus fits M92E or M92G cartridges. (Available October, 1968) ..... $18.50


## MODEL M93E
HI-TRACK ELLIPTICAL
1½ to 3 grams tracking
$39.95

An outstanding performer in turntables that track in the 1½ to 3 gram range.

### SPECIFICATIONS FOR M93E

Trackability at 2 grams tracking force using a Shure/SME Arm:
- 18 CM/SEC at 400 Hz
- 25 CM/SEC at 1,000 Hz
- 24 CM/SEC at 5,000 Hz
- 13 CM/SEC at 10,000 Hz

Frequency Response: From 20 to 20,000 Hz

Output Voltage: 6.2 mv per channel at 1,000 Hz at 5 CM/SEC

Channel Separation: More than 25 db at 1,000 Hz

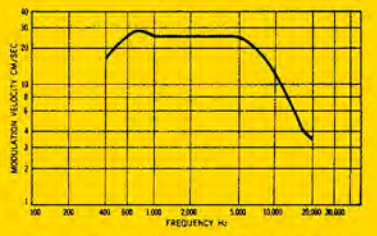
Channel Balance: Output from both channels within 2 db

Stylus: N93E Elliptical with diamond tip
- .0007 inch (17.8 microns) frontal radius
- .0004 inch (10 microns) side contact radii
- .0010 inch (25 microns) wide between record contact points

Tracking Force: 1½ to 3 grams

Recommended Load Impedance: 47,000 to 70,000 ohms (per channel)

### TRACKABILITY CHART*




Input Capacitance: 400-500 Pico-Farads per channel, including arm cable

Inductance: 720 millihenries

D.C. Resistance: 630 ohms

Terminals: 4 terminals

Weight: 6 grams

Mounting: Snap-in type; standard ½" (12.7 mm) Mounting centers on retaining clip

MODEL M93E Hi-Track Cartridge ..... $39.95

MODEL N93E Elliptical Replacement Stylus ..... $19.50

### M75G HI-TRACK SPHERICAL STYLUS CARTRIDGE FOR ¾-1½ GRAMS TRACKING

Specifications same as M75E except that M75G has a spherical diamond stylus (.0006 inch Radius).

MODEL M75G Hi-Track Cartridge ..... $34.95

MODEL N75G Stylus ..... $17.50

### M75-6 HI-TRACK SPHERICAL STYLUS CARTRIDGE FOR 1½ TO 3 GRAMS TRACKING

Ideal for use in upgrading systems with older turntables that track at heavier forces (1½ to 3 grams). Specifications same as M75E when tracking at 2 grams (also see trackability chart right) except that M75-6 has a spherical diamond stylus (.0006 inch Radius).

MODEL M75-6 Hi-Track Cartridge ..... $24.50

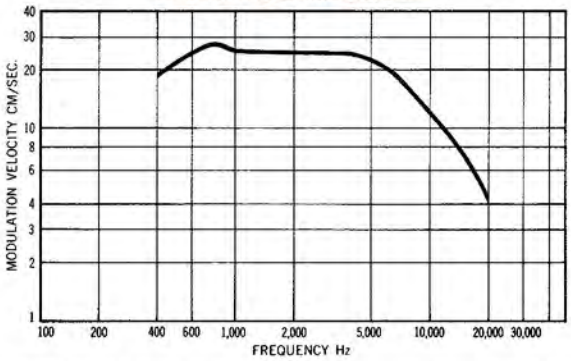
MODEL N75-6 Stylus ..... $11.35

### N75-3 STYLUS FOR 78 RPM RECORDINGS

Can be used in any V-15 Type II, M91, M92, M93, M75 series cartridges for playing 78 RPM Recordings. Radius: .0025 inch, 6.2 mv output. 1½ to 3 gram tracking. $9.00

* NOTE: For an explanation of how to read the trackability charts, and what they mean, please refer to page 3 of this brochure.

Trackability Chart for M75E, M75G and M75-6*



# BI-RADIAL ELLIPTICAL STYLUS CARTRIDGES

## about the bi-radial stylus

One of the most dramatic improvements in cartridge stylus design in years. The Bi-Radial elliptical stylus closely matches the shape of the cutter stylus that cuts the master record. Actual side contact radius is only .0002 inch (5 microns) or .0004 inch (10 microns). Frontal radius is .0007 inch (17.8 microns) so stylus cannot "bottom" in record groove. Lowers IM, harmonic and tracing distortion to virtual insignificance. In addition to audible improvement of stereo recordings, gives monophonic records a new vitality and clarity. Standard on V-15 Type II, M91E, M92E, M93E, M75E, M55E, M44E, M32E, M31E cartridges and M80E-D19, Gard-A-Matic cartridge assembly.

for ¾ to 1½ grams tracking

SHURE M55E

Stereo Dynetic

A popular cartridge that gives professional performance within a moderate budget. Incorporates Bi-Radial elliptical stylus. Note the wide variety of features and impressive specifications:

### SPECIFICATIONS

Frequency Response: From 20 to 20,000 Hz

Output Voltage: 6.6 millivolts per channel at 1,000 Hz at 5 CM/SEC

Channel Separation: Nominally over 25 db at 1,000 Hz

Channel Balance: Output from each channel within 2 db

Compliance:

Horizontal } 25.0 x $10^{-6}$ CM/dyne
Vertical }

Effective Stylus Tip Mass: 1.2 milligrams

Tracking Force: ¾ to 1½ grams

Stylus N55E: Elliptical shaped diamond tip
- .0007 inch (17.8 microns) frontal radius
- .0002 inch (5 microns) side contact radii
- .0010 inch (25 microns) between points of contact with groove

Recommended Load Impedance: 47,000 ohms (per channel)

Inductance: 720 millihenries

D.C. Resistance: 630 ohms

Terminals: 4 terminals

Weight: 7 grams

Mounting: Standard ½" (12.7 mm) mounting centers

MODEL M55E Cartridge . . . . $35.50
MODEL N55E Stylus . . . . . $17.75

for heavier tracking forces: 1¾ to 4 grams

SHURE M44E

Stereo Dynetic

All the advantages of a Bi-Radial elliptical stylus (.0004 inch side contact radii, .0007 inch frontal radius) for older turntables that track at heavier weights. Specifications similar to above, except compliance is 15.0 x $10^{-6}$. Effective stylus tip mass is 1.4 milligrams. Output is 9.3 mv per channel at 1,000 Hz at 5 CM/SEC, and tracking force is 1¾ to 4 grams.

MODEL M44E Cartridge . . . . . $34.50
MODEL N44E Elliptical Stylus . . . . . $17.25

**LOWEST COST ELLIPTICAL STYLUS CARTRIDGES**

for 1 to 2 grams tracking

SHURE M31E

for 2½ to 5 grams tracking

SHURE M32E

Stereo Dynetic

Now . . . the Bi-Radial elliptical stylus in a new series of moderately priced cartridges. The M31E is specifically designed for light tracking turntables and changers—the M32E for moderately priced changers.

### SPECIFICATIONS

Frequency Response:
Model M31E from 20 to 18,500 Hz
Model M32E from 20 to 17,500 Hz

Output Voltage:
Model M31E 10.0 millivolts per channel at 1,000 Hz at 5 CM/SEC
Model M32E 9.0 millivolts per channel at 1,000 Hz at 5 CM/SEC

Channel Separation: More than 25 db at 1,000 Hz

Compliance:

Horizontal } 15.0 x $10^{-6}$ CM/dyne For M31E
Vertical } 10.0 x $10^{-6}$ CM/dyne For M32E

Stylus: Model N31E. For cartridge M31E. Elliptical shaped diamond tip:
- .0007 inch (17.8 microns) frontal radius
- .0002 inch (5 microns) side contact radii
- .0010 inch (25 microns) between points of contact with groove

Stylus: Model N32E. For cartridge M32E. Elliptical shaped diamond tip:
- .0007 inch (17.8 microns) frontal radius
- .0004 inch (10 microns) side contact radii
- .0010 inch (25 microns) between points of contact with groove

Tracking Force:
Model M31E: 1 to 2 grams
Model M32E: 2½ to 5 grams

Recommended Load Impedance: 47,000 ohms per channel

Inductance: 720 millihenries

D.C. Resistance: 630 ohms

Weight: 6 grams

Mounting: Standard ½" (12.7 mm) mounting centers

MODEL M31E Cartridge . . . $29.95
MODEL N31E Stylus . . . . . $14.95
MODEL M32E Cartridge . . . $29.50
MODEL N32E Stylus . . . . . $14.50

# Spherical Stylus Cartridges

combines quality and economy

SHURE M44 SERIES

Three cartridges in the $18.00 to $22.00 price range to fill the needs of the hi-fi hobbyist who wants the most for his money in this price range. All have received ample critical acclaim as the best in their price class. Note: All M44 series styli are interchangeable.

### SPECIFICATIONS

Frequency Response: From 20 to 20,000 Hz

Output Voltage: At 1,000 Hz at 5 CM/SEC Model M44-5, 7 millivolts per channel, Model M44-7, 11 millivolts per channel, Model M44C, 9.3 millivolts per channel

Channel Separation: More than 25 db at 1,000 Hz

Recommended Load Impedance: 47,000 ohms per channel

Inductance: 720 millihenries

D.C. Resistance: 630 ohms

Terminals: 4 terminals

Weight: 7 grams

Mounting: Standard ½" (12.7 mm) mounting centers

**For Light Tracking ¾ to 1½ Grams**

MODEL M44-5 Cartridge. With .0005-inch radius spherical diamond stylus .....$21.95

MODEL N44-5 Stylus. .0005-inch radius spherical diamond.....$11.00

**For Heavier Tracking 1½ to 3 Grams**

MODEL M44-7 Cartridge. With .0007-inch radius spherical diamond stylus .....$19.95

MODEL N44-7 Stylus. .0007-inch radius spherical diamond.....$ 9.75

**For Heaviest Tracking 3 to 5 Grams**

MODEL M44C Cartridge. With .0007-inch radius spherical diamond stylus .....$17.95

MODEL N44C Stylus. .0007-inch radius spherical diamond stylus....$ 9.00

all-time
best seller
MODEL M3D

Where cost is the dominant factor, the M3D provides extremely musical and transparent sound at a rock-bottom price. The original ...mous Shure Stereo Dynetic Cartridge . . . ith almost universal application. Tracks at forces from 3 to 6 grams. For any changer.

MODEL M3D Cartridge.....$15.75

MODEL N3D Stylus.....$ 7.95

musical
best buy
MODEL
M7/N21D

Top-rated cartridge featuring the highly compliant N21D tubular stylus. Because of unusually clean mid-range (where most music really "happens") it is especially recommended if your present system sounds "muddy." For 2-gram optimum tracking (not to be used over 2½ grams).

MODEL M7/N21D Cartridge.....$17.95

MODEL N21D Stylus.....$11.00

(Also, if you own an M3D or M7D, you can upgrade it for higher compliance, if tracking force does not exceed 2½ grams, with the N21D stylus.)

# Gard-A-Matic®

**CARTRIDGE/HEAD ASSEMBLY**

SHURE M80E-D19

**FOR BOUNCE-PROOF SCRATCH-PROOF RECORD PROTECTION**

**For Dual 1019, 1009 SK and 1009 F**

Model M80E-D19 Gard-A-Matic assembly is a high quality Bi-Radial elliptical stylus stereo cartridge mounted in a retractile safety suspension system to prevent stylus scratch and bounce in high quality turntables. When the maximum force of 1½ grams is exceeded, the cartridge retracts and a plastic safety bumper comes in contact with the surface of the record, protecting the record from the needle, and the needle itself from damage.

### SPECIFICATIONS

Frequency Response: From 20 to 20,000 Hz

Output Voltage: 6.6 millivolts per channel at 1,000 Hz at 5 CM/SEC

Channel Separation: Nominally over 25 db at 1,000 Hz

Compliance: 25 x $10^{-6}$ cm/dyne

Effective Stylus Tip Mass: 1.2 milligrams

Stylus: Elliptically shaped diamond tip: .0007 inch (17.8 microns) frontal radius .0002 inch (5 microns) side contact radii .0010 inch (25 microns) between points of contact with groove

Stylus Replacement: Model N55E

Tracking Force: ¾ to 1½ grams

Recommended Load Impedance: 47,000 ohms

Inductance: 720 millihenries

D.C. Resistance: 630 ohms

MODEL M80E-D19 .....$38.00

# GENUINE SHURE REPLACEMENT STYLI

### CHECK YOUR SHURE STYLUS PERIODICALLY

True, it's unfortunate . . . and unfortunately, it's true: the diamond tip of ANY high fidelity stylus eventually wears out. Some sooner, some later. The new ultra-lightweight tracking force cartridges (¾ to 1½ grams) extend diamond tip life many times. But even they need periodic inspection. Depending upon the degree of wear, a worn stylus will (at the very least) appreciably accelerate record wear—or it can actually damage a record beyond redemption, in a single playing!

### SHURE PERFORMANCE DEPENDS ON A GENUINE SHURE STYLUS

The superior performance of all Shure cartridges depends upon the Shure Stereo Dynetic Stylus Assembly. An inferior stylus replacement will audibly detract from and significantly reduce the cartridge's performance and increase record wear. Obviously, if an imitation Shure Stereo Dynetic Stylus is used, we cannot guarantee that the cartridge will perform to published specifications. Accept no substitute. Look for this wording:

"This Stereo Dynetic Stylus is precision manufactured by Shure Brothers, Inc."

### HOW TO UPGRADE OLDER SHURE CARTRIDGES WITH A NEW STYLUS

It is possible to actually upgrade your cartridge by using a higher compliance stylus assembly which tracks at lighter force, or by using an elliptical stylus in place of a conical stylus for reduction of IM, harmonic and tracing distortion. Here are some examples of improvements: M3D or M7D . . . Substitute N21D stylus for greater compliance, lighter tracking (2½ grams maximum).

Any M44 Cartridge . . . Substitute N55E stylus for greater compliance and lighter tracking (at ¾ to 1½ grams). For tracking at 1¾ to 4 grams use the N44E stylus.

### REPLACEMENT DIAMOND STYLI FOR OLDER SHURE CARTRIDGES

MODEL N1 Stylus.
.0007" spherical tip radius. Fits M1 cartridge.....$21.00

MODEL N2 Stylus.
.0027" spherical tip radius. Fits M2 cartridge.....$21.00

MODEL N22D Stylus. .0005" spherical tip radius. Fits M22, M7/N21D, M3D/N21D, M3D and M7D cartridges.....$24.75

MODEL N33-1 Stylus. .001" spherical tip radius. For mono L.P.'s Fits M33 and M77 cartridges.....$19.50

MODEL N33-5 Stylus.
.0005" spherical tip radius. Fits M33-5 cartridge.....$19.50

MODEL N33-7 Stylus.
.0007" spherical tip radius. Fits M33-7 cartridge.....$19.50

MODEL N44-1 Stylus. .001" spherical tip radius. For mono L.P.'s. Fits M44 series, M55E and V-15 Type I cartridge....$ 9.75

MODEL N77 Stylus.
.0007" spherical tip radius. Fits M77 cartridge.....$10.50

MODEL N78 Stylus. .0027" spherical tip radius. For 78 RPM recording. Fits M77 and M33 series cartridges.....$ 8.55

MODEL VN2E Stylus.
Bi-radial elliptical tip. Fits V-15 Type I.....$25.00

### STYLI FOR 78 RPM CARTRIDGES

If you have a large collection of 78 RPM records, you can equip the M31E, M32E, any M44 series cartridge. M55E, M75 series, M91, M92, M93 series, or V-15 Type II cartridges with a special stylus for 78 RPM records.

MODEL N32-3 Stylus. .0025" spherical tip radius. Fits the M31E and the M32E cartridges.....$9.00

MODEL N44-3 Stylus. .0025" spherical tip radius. Fits any M44 series, and the M55E cartridge.....$9.00

MODEL N75-3 Stylus. .0025" spherical tip radius. Fits the M75, M91, M92, M93 series and V-15 Type II cartridges.....$9.00

# Shure Tone Arms

## SHURE SME SERIES II

"the best pickup arm in the world"

The Shure-SME, Series II, the ultimate in independent tone arms, provides features and quality unattainable in any other tone arm. Manufactured to singularly close tolerances and standards by skilled British craftsmen. Utterly accurate adjustments are provided for every critical factor relating to perfect tracking, such as height, overhang, length, tracking force and bias (anti-skating). These arms accept cartridges weighing 3 to 17 grams and allow tracking forces from ¼ of a gram to 5 grams to be used. Because the Shure-SME tone arms realize the full potential of the cartridge and the record, they are especially suited for use in combination with any Shure cartridge. Highly recommended for use in the very finest component high fidelity systems.

Some of its many features include:

- Virtually frictionless knife-edge bearings
- Wood-lined arm puts resonances outside recorded range
- Effective "anti-skating" bias adjuster counterweight
- Hydraulic cueing device

MODEL 3009 for 12″ recordings.....$106.50
MODEL 3012 for 16″ recordings.....$116.50
MODEL S2 SME lightweight shell.....$ 7.50

Mounting boards for installing Shure-SME arms on Thorens TD-124 and TD-121 turntables.

MODEL A39M for mounting Model 3009.....$15.00
MODEL A30M for mounting Model 3012.....$15.00

## SHURE PROFESSIONAL TONE ARM

A quality arm at an unexpectedly low price. Full range of adjustments for static and dynamic balance, cartridge overhang, arm height, etc. Exceptionally easy to install from the top of the motorboard.

MODEL M232 for 12″ recordings.....$29.95
MODEL M236 for 16″ recordings.....$31.95
MODEL A23H extra plug in head.....$ 2.40

# Shure Solo-Phone® Headphone Amplifiers


## MODEL SA-1 FOR USE WITH THE SOUND SYSTEM OF YOUR CHOICE

The SA-1 was specifically designed for private headphone listening. The Solo-Phone is a small, all-transistor pre-amplifier/amplifier, that will deliver the depth and "presence" of high fidelity stereo—in private—from whichever sound source you choose to connect to it: record player, tape recorder or AM/FM tuner. True-to-performance sound is assured by its broad frequency response and exceptionally low distortion, including the difficult low frequencies. Handsome walnut finish with beige face plate.

### VERSATILE . . .

Tape, record changer or tuner . . . you can easily vary the sound source. You also can use the Solo-Phone amplifier with one or two sets of headphones, or even with high efficiency speakers, for low-volume background music. Each stereo channel can be adjusted separately to achieve proper balance. U.L. listed for commercial applications. Weighs just 2 lbs.

MODEL SA-1 SOLO-PHONE AMPLIFIER:
105-125 V., AC., 10¼″ x 3½″ x 3″. Less Headphones.....Only $45.00
MODEL SA-1F SOLO-PHONE FOR PANEL MOUNTING.
Less Headphones.....$57.00

## MODEL SA-10 COMPLETE SELF-CONTAINED SOLO-PHONE SYSTEM

An exciting new concept in superior-quality, private high fidelity listening. It is a completely self-contained record playing system that combines a Garrard Model 50 4-speed automatic turntable with a Shure all-transistor Solo-Phone amplifier and Shure M44C Stereo Dynetic Cartridge.

Plug in one or two sets of headphones and you can listen to your favorite recordings or language lessons . . . without disturbing others.

Easy to set up and to use. Simply plug it into a wall outlet, plug in your headphones and you're ready to enjoy! It will play 16, 33⅓, 45 and 78 r.p.m.; 7″, 10″ or 12″ records; stereophonically or monophonically. Only three controls: "on-off," volume and turntable speed selector. And you can adjust each stereo channel separately to achieve proper balance.

MODEL SA-10 SOLO-PHONE SYSTEM: 105-125 V., AC., 50-60 cyc. 8″ x 17½″ x 13¾″. Less Headphones..Only $99.95
MODEL SA-10M SOLO-PHONE SYSTEM WITH 4-SPEED MANUAL TURNTABLE.....$99.95

**FOR ADDITIONAL INFORMATION ON SHURE SOLO-PHONES,** write for complete catalog No. AL291A.

**SHURE BROTHERS, INC.**
222 Hartrey Ave., Evanston, Illinois 60204

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