

SHURE**MICROPHONES AND ELECTRONIC COMPONENTS**® AREA CODE 312/866-2200 • CABLE: SHUREMICRO
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**STEREO MODELS VN35E, VN3-G
AND MONOPHONIC MODEL VN78E
SUPER-TRACK "PLUS" STEREO DYNETIC® STYLI**

Stereo Dynetic **DIAMOND STYLI**



THE MODELS VN35E, VN3-G, AND VN78E ARE DIAMOND STYLI FOR THE MODEL V-15 TYPE III CARTRIDGES.

The Model VN35E Stylus (grip color-black) has a Biradial (Elliptical) Diamond Tip constructed with a broad frontal plane radius of 18 microns (.0007 in.) while the side contact radii are 5 microns (.0002 in.) and the spacing between the record contact points is 25 microns (.001 in.).

The Model VN3-G Stylus (grip color-gray) is constructed like the VN35E, except the diamond tip has a spherical shape with a radius of 15 microns (.0006 in.).

The Model VN78E Stylus (grip color-light green) has a Bi-radial (Elliptical) Diamond Tip designed for playback of monophonic 78 rpm records. The broad frontal plane radius is 63 microns (.0025), while the side contact radii are 13 microns (.0005 in.). The spacing between the record contact points is 89 microns (.0035 in.) When using the VN78E, the amplifier should be set to "A+B" or "MONO." The use of a VN78E will provide a significant improvement in the reproduction of older 78 rpm records over conventional 63 micron (.0025 in.) to 75 micron (.003 in.) spherical tips.

NOTE—A small .8 gram weight has been added to the molded grip of the VN78E Stylus Assembly, allowing it to be substituted for a VN35E or VN3-G. Without altering the tracking force setting on the tone arm, the proper tracking force for 78 rpm records will be achieved. For example, a V15 Type III tracking at .75 grams and using a VN35E or VN3-G Stylus would automatically track at 1.55 grams when a VN78E Stylus was substituted. If the V15 Type III were tracking at 1.25 grams, the substitution of a VN78E would change the tracking force to 2.05 grams. If tracking forces greater than 2.05 grams are required for playing 78 rpm records, a manual tracking force adjustment must be made on the tone arm; however, allowance should be made for the additional .8 gram weight contained in the VN78E Stylus.

The major feature of these styli is their superior **TRACK-ABILITY**. Because of it, all records will sound better, and in fact you will hear some recordings tracked for the first time without distortion. The V15 Type III Cartridge has the following specifications with the styli noted.

TRACKING FORCE RANGE:

VN35E and VN3-G $\frac{3}{4}$ to $1\frac{1}{4}$ grams
VN78E $1\frac{1}{2}$ to 3 grams

NOTE—Do not exceed maximum rated tracking force.

TRACKABILITY: In Shure-SME Tone Arm with VN35E and VN3-G at 1 gram (Reference: Shure TTR103 Laboratory Test Record)

400 Hz - 26 cm/sec
1,000 Hz - 38 cm/sec
5,000 Hz - 35 cm/sec
10,000 Hz - 26 cm/sec

FREQUENCY RESPONSE (using optimum load): 10 to 25,000 Hz

OUTPUT VOLTAGE (at 1,000 Hz, 5 cm/sec peak recorded velocity):

3.5 mV per channel — VN35E, VN3G, VN78E

(Output voltages given for stereo cut record. For MONO cut record, output voltage at both left channel and right channel cartridge terminals will be 71% of figure above.)

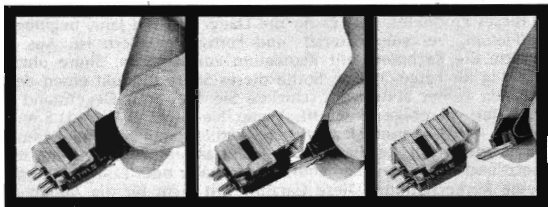
CHANNEL BALANCE: Within 2 dB

CHANNEL SEPARATION (minimum):

25 dB at 1,000 Hz
15 dB at 10,000 Hz

NOTE—The Shure Biradial (Elliptical) Stylus has certain advantages:

1. It drastically reduces tracing distortion because the elliptical shape more closely follows the groove made by the wedge-shaped cutting stylus. This means that the line passing through the contact points coincides with the line of contact of the cutting stylus more closely than that of a spherical stylus.
2. It supplies the most accurate reproduction of the musical information stored in the record groove. The VN35E Stylus provides optimum playback of stereo, 4-channel matrix, and monophonic LP records; the VN78E provides optimum playback, with minimum surface noise and distortion, of older wide-groove records such as 78s.



STYLUS REPLACEMENT

Stylus replacement is very simple and fast. To replace with stylus guard down—grasp stylus grip between thumb and forefinger. Gently withdraw stylus by pulling forward out of cartridge. Grasp grip of replacement stylus between thumb and forefinger and insert into stylus socket. Press stylus into socket until the molded housing of the stylus touches the cartridge case. Care must be taken not to allow the finger to slip off the stylus grip, as this could result in damage to the stylus tip or shank.

The stylus assembly, when installed in the cartridge, is practically immune to damage during normal usage. However, because of the delicate low mass components, extra care should be taken to avoid bending or distorting the stylus assembly when it is installed, removed, or cleaned.

NOTE: Stylus guard is shown in "up" position for clarity; guard should be in "down" position when removing or replacing stylus.

RECOMMENDED STYLUS CLEANING: Use a camel's hair brush (No. 2 size or smaller), trimmed to approximately 6 mm ($\frac{1}{4}$ in.), dipped in alcohol or an alcohol-distilled water solution. Commercial cleaning solutions may cause stylus damage or corrosion. Always brush stylus from back to front, never brush or wipe stylus from front to back or side to side.

TO PRESERVE STYLUS LIFE:

1. Follow turntable or tone arm instructions when adjusting antiskating force.
2. Do not handle the tone arm while it is in operation, since this may cause the arm to sweep across the record.
3. If it is necessary to manually place the tone arm in the record groove while turntable is rotating, release it as soon as the stylus engages the record groove.
4. Correct improper set-down adjustment or malfunction of the turntable changing mechanism to prevent the stylus from striking the edge of the turntable or record. Do not stack more records than the turntable manufacturer recommends.
5. Take care to properly insert the stylus into the cartridge assembly and the cartridge and shell assembly into the tone arm receptacle.
6. Use proper vertical tracking force setting for each cartridge.
7. Do not use badly warped, cracked, or imperfect records.
8. When dusting the turntable protect the stylus with the stylus guard.