

# NAGATRON 185E

STEREO PHONO CARTRIDGE

ONE YEAR LIMITED WARRANTY

Nagatron-brand magnetic cartridges and styli purchased in the U.S.A. are warranted for one year from date of purchase by Nagatronics Corp. to be free from defects in material and workmanship. In the event of such defect, product will be repaired promptly without charge, or, at our option, replaced with a new product of equal or superior value, if delivered to Nagatronics Corp. prepaid. Warranty excludes normal stylus wear, failure due to abuse or operation outside specified ratings. Manufacturer, distributor and seller shall not be liable for consequential damages. This warranty gives you specific legal rights, and you may have other rights which vary from state to state. For instructions on return for repair of Nagatron products, whether in or out of warranty, please write Nagatronics Corp., 2280 Grand Avenue, Baldwin, New York 11510.

Outside the U.S.A. contact your local dealer or Nagatronics distributor for warranty details.

POSITIVE STEPS

TO FAITHFUL

SOUND REPRODUCTION

Your new Nagatron stereo phono cartridge is the smallest component in your high fidelity system. Yet, through a combination of excellence in design and quality-controlled manufacturing, it is also one of the most accurate components of sound reproduction you now own.

All Nagatron cartridges meet or exceed their specifications, and will provide you with many hours of fine performance and listening pleasure.

## INSTALLATION

### MODEL 165S and 185E

Before mounting your cartridge in the tone arm headshell, it is recommended that you remove the stylus assembly to avoid accidental damage to the diamond tip. Refer to "STYLUS REPLACEMENT" for details.

Correct channel hookup and installation is simplified by color-coded or marked terminals at the back of the cartridge, corresponding to standard tone arm connections.

The small clips at the ends of the color-coded wires originating in the headshell should be affixed to the correct terminals on the back of the cartridge. Carefully slide them on with the aid of tweezers or long-nose pliers. If the clips are too loose for a firm fit they may be gently squeezed.

**Important: these clips must not be soldered to the cartridge.** To do so will cause irreparable damage to the cartridge and will invalidate your warranty.

Place the connected cartridge into position in the tone arm headshell, taking care that the slack wire does not droop. It is recommended that you gently push the colored wire loops up toward the roof of the headshell, where they will not interfere with or touch the record during play. Also make sure the clips do not touch each other.

Screws and other hardware you may need to achieve proper installation are included in the cartridge packing. Note that the top of the Nagatron cartridge should be installed parallel to the roof of the headshell. Refer to your particular tone arm or turntable instructions for any additional cartridge mounting information.

### MODEL 175IS and 195IE

No installation of the cartridge is necessary, since your Nagatron cartridge has been factory-unitized in its own lightweight, component-quality Nagatron headshell. This headshell utilizes standard four-pin connections and is compatible with your tone arm.

Correct installation merely requires that you follow your tone arm or turntable manufacturer's instructions for replacement of the headshell.

## SETTING STYLUS TRACKING FORCE

Your turntable manual describes the steps you should use for adjusting tracking forces, and the data below indicates recommended forces for your Nagatron cartridge.

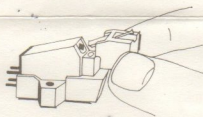
Stylus Force Range: 1.50-2.00 grams  
Nominal Setting 1.80 grams

The Range of permissible tracking forces has been chosen to deliberately avoid ultralightweight specifications that may look good on paper, but are far from realistic. Nagatron cartridges take into account variations in tone arm mass and quality to achieve both minimum record wear and best performance. The Nominal Setting will be optimum in most instances.

If your turntable has a Skating Force adjustment, set it to the manufacturer's specifications.

## STYLUS REPLACEMENT

Every Nagatron cartridge is supplied with a precision diamond stylus assuring maximum record protection and long playing life. Even a diamond will eventually show signs of wear, however, and should the need for replacement be necessary, simply follow the procedure illustrated here. Replacement units are available from authorized Nagatron dealers, and are guaranteed to meet original specifications.



Grasp stylus assembly between thumb and index finger and ease entire assembly out of cartridge body. To replace stylus assembly, slowly position replacement and insert gently but firmly into stylus pocket.

## MAINTENANCE

Nagatron stylus tips and cartridges require no maintenance other than an occasional cleaning to remove accumulated record dust. A soft brush such as a camel-hair water-color brush clipped to about a quarter-inch length is suggested. The brush may be moistened with alcohol if desired, and the tip should be brushed back to front with a smooth motion. The work may be checked with a magnifying glass.

Most authorized Nagatron dealers can examine your original stylus assembly at regular intervals, by means of ultra-high power microscopy, to determine the need for replacement. Regular attention to this often-overlooked maintenance procedure can preserve your valuable record collection and provide continued excellent sound.

## TECHNICAL DATA

**Cartridge type:** 2-channel induced magnet with Super-Permalloy shield

**Frequency Response:** 20 to 20,000 Hz

**Effective mass:** 0.85 milligram

**Channel separation (Nominal):** 24 dB at 1,000 Hz.

**Output voltage (Nominal):** 4.0mV/1,000 Hz, 50mm/sec.

**Channel balance (Nominal):** Within 1.5 dB/1,000 Hz.

**Recommended load:** 30,000 to 100,000 ohms; 50,000 ohms nominal

**Stylus type:** "S" designation: 0.5 mil diamond;

"E" designation: 0.3 x 0.7 mil elliptical diamond.

**Dynamic compliance:** More than  $8 \times 10^{-6}$  cm/dyne at 1,000 Hz nominal

**Static compliance:**  $20 \times 10^{-6}$  cm/dyne

**Cantilever:** Aluminum

## OWNER WARRANTY REGISTRATION

To register your new Nagatron cartridge we request that you fill in and return the card within ten days of purchase. Retain all sales receipts pertaining to this purchase.

Detach card below and mail to:

Warranty Registration  
NAGATRONICS CORP. 2280 Grand Avenue, Baldwin, New York 11510

Purchaser's Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Nagatron Model No. \_\_\_\_\_  
(if applicable)

Serial number \_\_\_\_\_  
(if applicable)

Date of Purchase \_\_\_\_\_

Dealer's name and address \_\_\_\_\_

Brand & model record player \_\_\_\_\_

Comments \_\_\_\_\_