

DENON®

# DL-103R

## DL-103R Stereo Cartridge Operating Instructions

Thank you for your purchase of the DENON DL-103R stereo cartridge.  
Read these Operating Instructions carefully before using your DL-103R and keep it for future reference.

### Accessories

Stylus cleaning brush .....	1	Data sheet .....	1
Operating instructions.....	1		

### Before Using

1. The Stylus is very delicate. Applying excessive force to the stylus, such as pressing with a finger can break it. Handle the cartridge with the utmost care.
2. A powerful magnet is used in the cartridge. Note that carelessly bringing a steel screwdriver or other such item near the cartridge will result in it being attracted by the magnet and may result in damage to the stylus, so care must be taken. Be sure to use the stylus cover when mounting the cartridge in the head shell, or when otherwise handling the cartridge.

### Method of Use

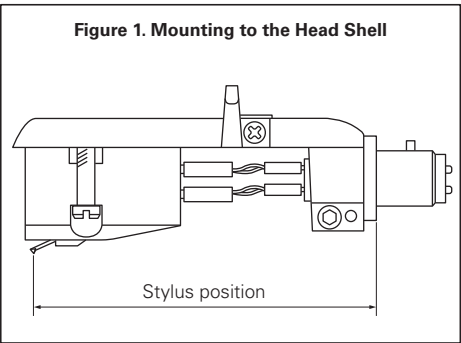
#### 1. Mounting to the Head Shell

- Adjust to the stylus position specified for the turntable system you, are using and mount properly without tilting or turning it. (See Figure 1.)
- The output terminals are color coded for identification as illustrated in Figure 2. Match the colors of the head shell leads to the terminals and connect properly.

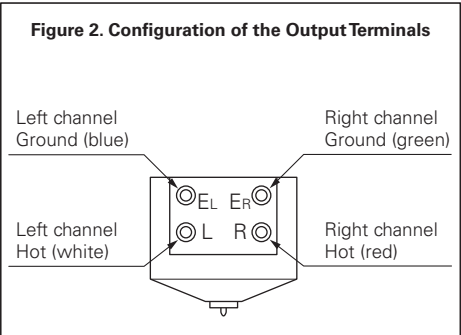
**NOTE:**

When connecting the cartridge, be sure to use the tipped leads and press them onto the terminals. Applying heat to the output terminals of the cartridge, such as in direct soldering, will cause internal damage to the cartridge, such as wire breakage.

**Figure 1. Mounting to the Head Shell**



**Figure 2. Configuration of the Output Terminals**



## 2. Tracking Force Adjustment

Tracking force in the range of  $25 \text{ mN} \pm 3 \text{ mN}$  ( $2.5 \text{ g} \pm 0.3 \text{ g}$ ) should be used.

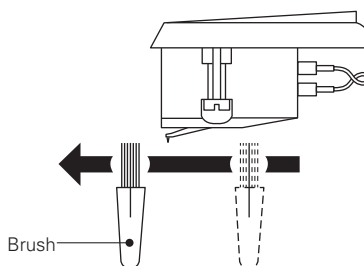
## 3. Output Voltage

The output voltage is  $0.25 \text{ mV}$ . Use of a step-up transformer for an MC type cartridge, or a head amplifier is recommended.

## 4. Stylus and Record Cleaning

Clean the stylus with the brush provided as illustrated in Figure 3. Also remove dirt from the record surface with a good quality record cleaner before and after playing.

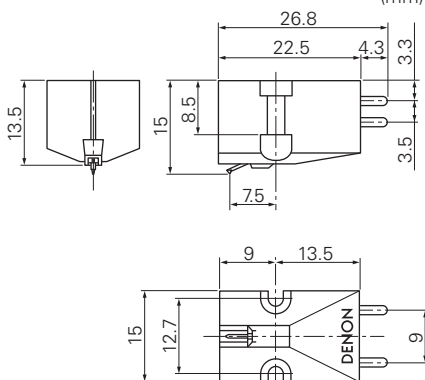
Figure 3. Stylus Cleaning



## Specifications

Principle	Moving coil (MC) type
Output Voltage	$0.25 \text{ mV}$ (1 kHz, 50 mm/s horizontal direction)
Channel Balance	1 dB max. (1 kHz)
Channel Separation	25 dB min. (1 kHz)
Electrical Impedance	$14 \Omega/\text{ohms} \pm 20 \%$
Compliance	$5 \times 10^{-3} \text{ m/N}$ (Using a 100 Hz record)
Stylus	0.2 mm square solid diamond
Tracking Force	$25 \text{ mN} \pm 3 \text{ mN}$ ( $2.5 \text{ g} \pm 0.3 \text{ g}$ )
Frequency Response	20 Hz to 45 kHz
Mass	8.5 g
Load Impedance	$100 \Omega/\text{ohms min.}$ ( $40 \Omega/\text{ohms}$ when using a transformer)

External Dimensions Diagram (mm)



Appearance and specifications are subject to change without notice for purpose of Improvement.

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