

(華) HANA Moving Coil Phono Cartridges Owner's Manual

(Hana EL,EH,SL,SH: 4 models)

Thank you very much for purchasing a HANA MC cartridge!
HANA cartridges are competitively priced, but with high quality sound reproduction, and ease of use and setup. In particular, the highoutput models, HANA "EH" and "SH" with 2mv output, are directly connectible to high output MM Phono inputs, without using step-up devices, still providing you with high quality MC sound.

■Products line

HANA-EH: High Output/ Elliptical Stylus to be connected direct to MM phono stage
HANA-EL: Low Output/Elliptical stylus to be connected to step-up device, or MC phono stage
HANA-SH: High Output/Shibata Stylus to be connect direct to MM phono stage
HANA-SL: Low Output/Shibata Stylus to be connected to step-up device, or MC phono stage

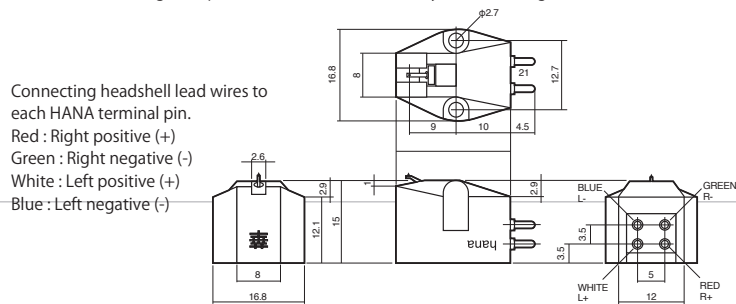
■ Product feature

HANA cartridges use high rigidity aluminum cantilevers, and cross-shaped armatures, providing you with brilliant and gorgeous sound ("brilliant and gorgeous" are the original Japanese meaning of "華"). Hana "SH" and "SL" use nude natural diamond Shibata-stylus, capable of excellent high frequency response, giving you supreme transparency and excellent trackability.

■Installation

●Connecting with Headshell

Fix HANA to your headshell with supplied screws and nuts. Pay careful attention that the cartridge is not twisted or angled when attaching it to the headshell. Make sure that there is no foreign object between the body and the headshell or tonearm for best sound. Make sure the top of the cartridge is flat to the headshell or tonearm. If the cartridge is not flat, it will be difficult to achieve correct azimuth and zenith. Make sure that the body of the cartridge is parallel to the edge of the headshell to assure correct offset angle and geometry. Finger tighten very firmly, but do not use excess force that might strip the screws or distort the body of the cartridge.



●VTF (Vertical Tracking Force) setting:

Nominal tracking force is 2g for all HANA MC models.
(Note: Increase VTF value slightly, if room temperature is below 20 degrees Centigrade, or 68 degrees Fahrenheit; also, the cartridge will warm up after playing music for a few minutes, increasing compliance slightly, due to the kinetic energy of the disk)

■Caution

- Be sure not to damage vulnerable cantilever or stylus when connecting with headshell.
- Never solder headshell lead wires directly to HANA terminal pins, which might break inner cartridge moving coil wires.
- Do not put any unnecessary pressure on cantilever stylus by fingers, which is carefully tuned at the factory. Unusual pressure will cause moving coil cartridges to loose their factory set compliance.
- To clean the stylus, use the included small brush. Gently move the brush from back to front (moving from cantilever base, to stylus tip) to remove dust or debris, built up during playback.

■Warranty

The manufacturer's warranty will apply to normal usage and operation for 2 years after shipping date from the manufacturer. However, the warranty does not apply to any damage by abuse. This is to be determined by manufacturer for warranty eligibility. The warranty covers defects in materials and craftsmanship, but not abuse. Please handle your cartridge carefully. Do not use excess force when installing or cleaning your cartridge. If you are unsure, please ask your dealer for assistance.

If you accidentally damage your cartridge, the manufacturer does offer a generous retip plan. This also applies to cartridges that are out of the warranty period.

■Hana Moving Coil Cartridges Specification

Model No.	HANA-EH	HANA-EL	HANA-SH	HANA-SL
Stylus	Synthetic Elliptical	Synthetic Elliptical	Nude Diamond Shibata	Nude Diamond Shibata
Cantilever	Aluminum	Aluminum	Aluminum	Aluminum
Output level	2mv/1kHz	0.5mv/1kHz	2mv/1kHz	0.5mv/1kHz
Output balance	<2dB/1kHz	<2dB/1kHz	<1.5dB/1kHz	<1.5dB/1kHz
Vertical Tracking force	2gr	2gr	2gr	2gr
Trackability	70 μm/2gr	70 μm/2gr	70 μm/2gr	70 μm/2gr
Channel separation	25dB/1kHz	25dB/1kHz	28dB/1kHz	28dB/1kHz
Frequency response	15-25,000Hz	15-25,000Hz	15-32,000Hz	15-32,000Hz
Impedance	130Ω/1kHz	30Ω/1kHz	130Ω/1kHz	30Ω/1kHz
Suggested load Impedance	47KΩ	>400Ω	47KΩ	>400Ω
Cartridge weight	5gr	5gr	5gr	5gr
Body Color	Moss Green	Moss Green	Black	Black