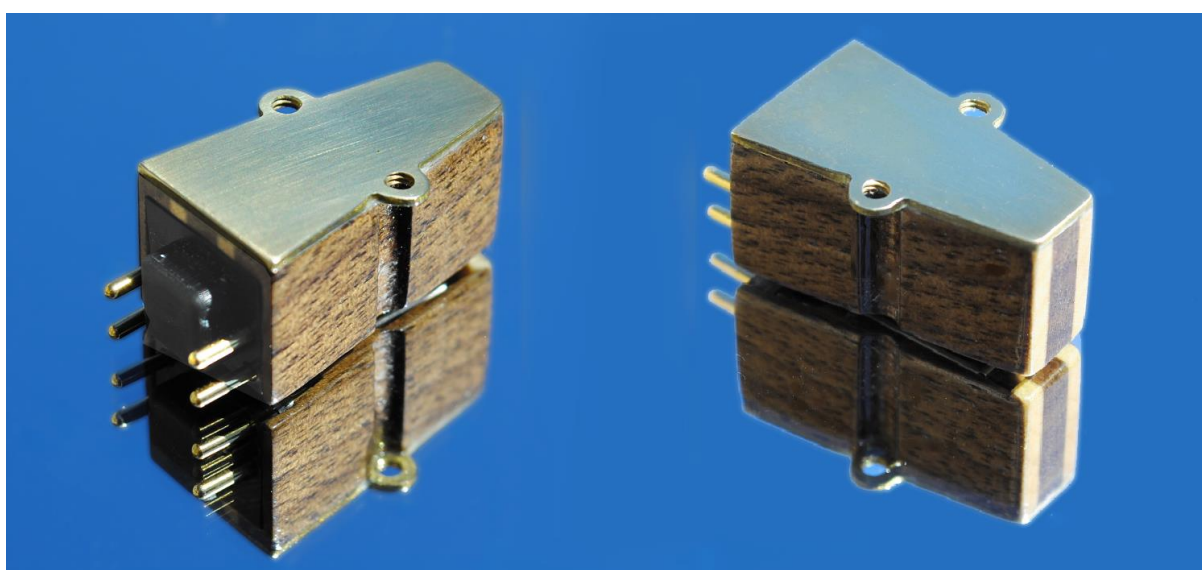


# PHLUX-III active phono cartridge

## Owner's Manual

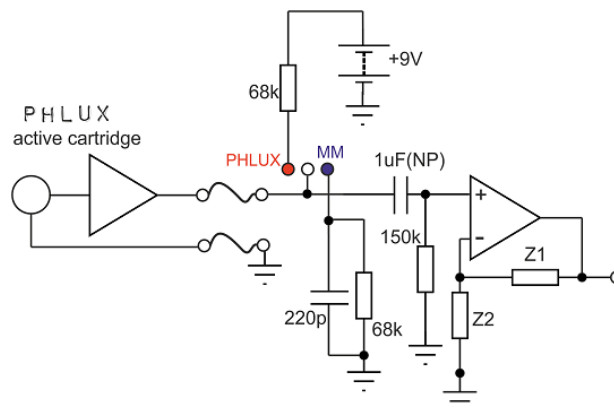


## Introduction

The Phædrus Audio PHLUX active phono cartridges represent a new development in phono cartridge technology in which a fixed-coil motor system is buffered by a miniature amplifier (impedance converter). PHLUX-III is the third-generation product with an internal amplifier and an American black ash body with rock maple inlay. The PHLUX-III replaces the original PHLUX and PHLUX-II cartridges.

## Preamplifier considerations

The miniature impedance-converter which buffers the moving-magnet motor is supplied power via the signal wires. By this means, the PHLUX-III may be fitted to any turntable and arm combination without modifications to the wiring. A suitable preamplifier circuit to support the PHLUX III cartridge (or a standard MM cartridge) is illustrated below.



Phædrus Audio provide a range of preamplifiers suitable for the PHLUX-III cartridge.

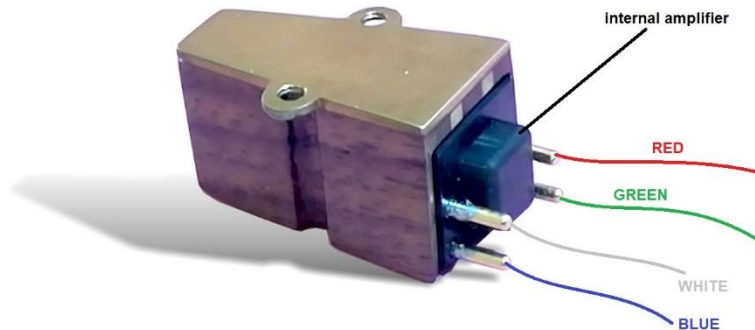


## Fitting the PHLUX III cartridge

The PHLUX III cartridge has a standard ½ inch mount. The brass top-plate is tapped M2.5, so no nuts are necessary. This makes fitting the cartridge very simple. Suitable, non-ferrous bolts are supplied with the cartridge. Be careful not to overtighten these bolts.

## Wiring

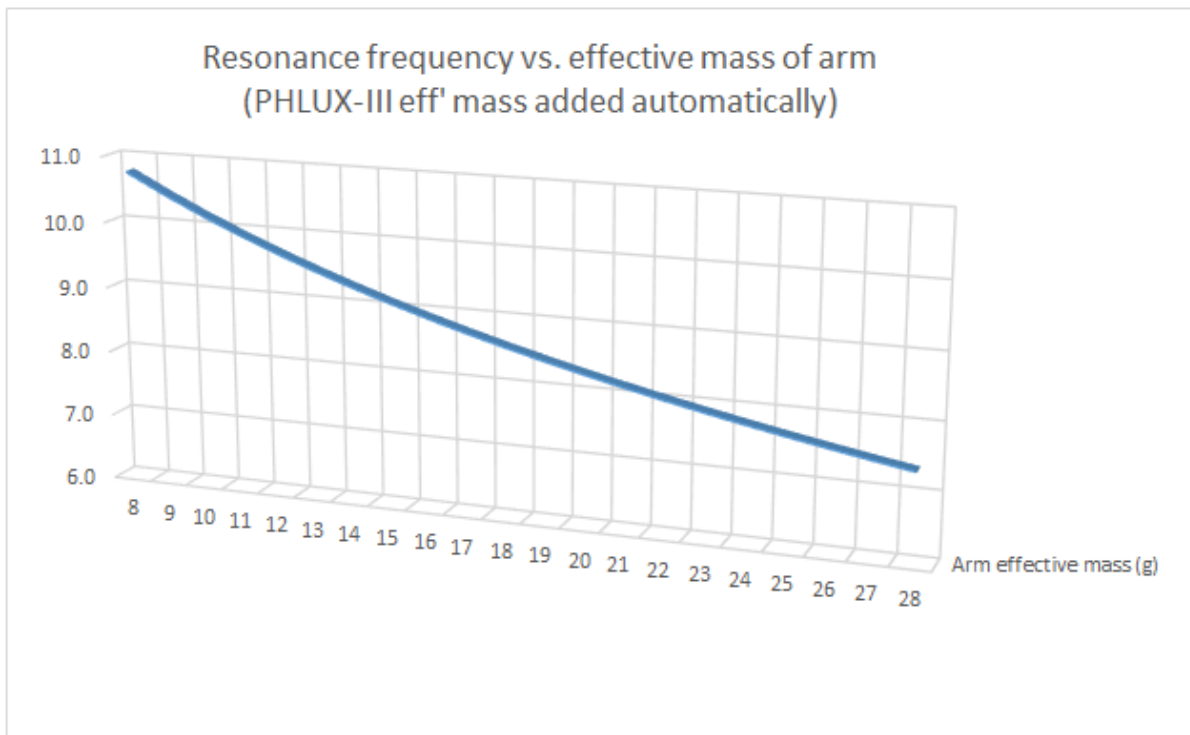
Connect the tonearm flying leads to the outer pins of the rear PHLUX-III according to the illustration below.



## Tonearm matching

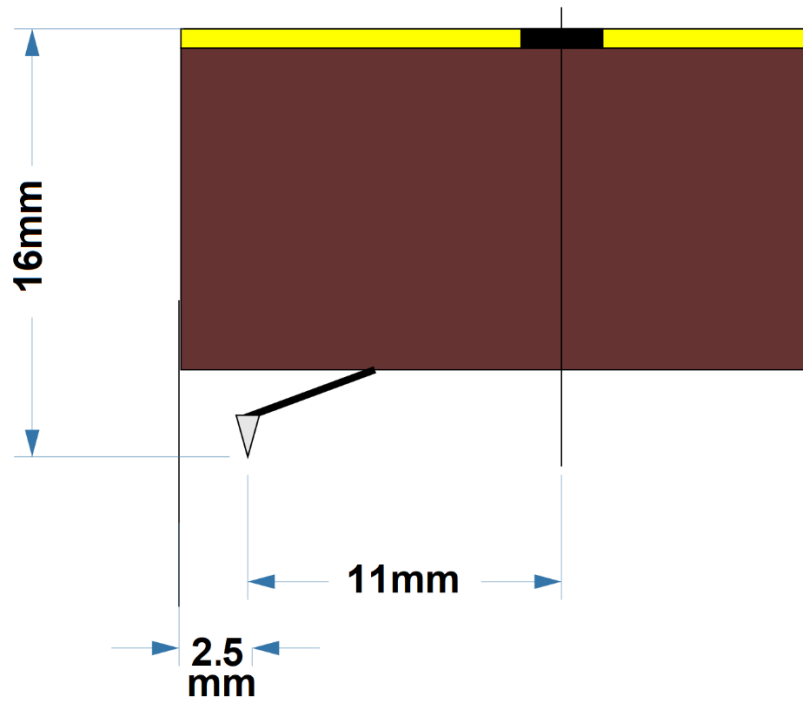
The PHLUX-III has a compliance of  $12.5\mu(\text{cm/dyne})$  which one should express today as  $12.5\mu\text{m/mN}$ . This is a mid-range compliance value which suits a very wide range of tonearms as the graph below illustrates. A tonearm whose effective mass is rated at 10 grams or below is considered low mass (for example, early SME's). A tonearm whose effective mass is rated between 11 and 25 grams is considered moderate mass (for example SME IV, V, VI, Technics SL-1200). Arms above 25 grams of mass are considered high mass.

The PHLUX-III will suit almost any tonearm and will not move the resonance out of the "magic" 7 - 12Hz range.



## Alignment

Dimensions useful for setting VTA and effective length are illustrated below.



## Appendix - Specification Phædrus Audio PHLUX-III

- Generator: Fixed-coil – active
- Tracking force: 15 - 25mN; 20 mN (2.0 g) recommended
- Stylus type – *See below*
- Body: American black walnut with rock maple stripes. Brass top plate
- Cartridge weight: 9.5g
- Mount: Half-inch, M2.5 tapped
- Tracking ability (300Hz): 68µm lateral & vertical\*
- Tracking ability (400Hz): 24 cm/s peak lateral‡
- Tracking ability (1kHz): 31.5 cm/s peak lateral‡
- Tracking ability (10.8kHz): 30 cm/s peak lateral‡
- Tip mass resonance: >38kHz
- Effective mass of the moving armature: 0.375mg.
- Vertical tracking angle: 23°
- Output voltage at 1000 Hz, 5cm/sec: 3.5 mV
- Output impedance 300Ω
- Load impedance: non-critical, 47k or greater, 200pF or less
- Frequency response: 30Hz - 20kHz: ±1.5dB†
- Channel separation: 28dB (1kHz)
- Distortion (300 Hz 45µm): <0.3% lateral; 3% vertical\*

† JVC TRS-1007 lateral; includes variation due to wavelength loss on inner grooves.

\* CBS STR-112

‡ Shure TTR-103

Note that the PHLUX active cartridge is the subject of UK Patent application GB1517805.6

### Stylus types and dimensions

- PHLUX-III-E - 0.0003 x 0.0007" (7.5µm x 18µm) nude, round-shank, elliptical
- PHLUX-III-S - 0.00026 x 0.0027" (6.5µm x 68µm) nude, square-shank, Shibata stylus

This range of modern stylus types is also complemented with the following types for historic recordings:

- PHLUX-III-78 - 0.003" (75µm) bonded round-shank, conical stylus, for shellac records
- PHLUX-III- FEATHER - 0.0006" (15µm) bonded, conical stylus, for mono and archive work

*Phædrus Audio reserves the right to alter this specification without notice.*

## Warranty information

### Warranty and service

If you experience a problem with a Phaedrus Audio product, contact support@phaedrus-audio.com. We will diagnose the problem remotely and advise you of the warranty status. If a repair or replacement is required, we will issue a Return Merchandise Authorization (RMA) number and tell you where to send the unit to be repaired. You MUST have an RMA number before you return the equipment to Phaedrus Audio's support service. Phaedrus Audio will not accept responsibility for loss or damage in shipping or for equipment returned without valid paperwork and/or a valid RMA number. Remember, warranty is void if product serial numbers have been removed or altered, or if the product has been damaged by abuse, accident or unauthorized modification and/or repair. There are no user serviceable parts inside.

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This limited warranty is valid only if you purchased the product from Phaedrus Audio or from a Phaedrus Audio authorized dealer in the country of purchase. Phaedrus Audio warrants that the equipment it manufactures shall be free from defects in material and workmanship for a period of one year from the original date of purchase; unless a longer minimum warranty period is mandated by applicable local laws. If equipment fails due to such defects within this period, Phaedrus Audio will, at its option, repair or provide a replacement for the defective product. This warranty does not extend to any Phaedrus Audio product that has been damaged or rendered defective as a result of: accident, misuse, or abuse; or by the use of parts not manufactured or supplied by Phaedrus Audio; or by unauthorized modification or attempted repair to the product; or by acts of God/Nature (accident, fire, flood, etc.) or any other condition that is beyond the control of Phaedrus Audio. As this product does not "age" with time, this warranty does not cover "changes in sound", but is limited to failure to pass signal during the warranty period. This limited warranty is invalid if the factory applied serial number has been altered or removed from the product.

This limited warranty is extended exclusively to the original buyer (customer of Phaedrus Audio, or authorized retail dealer) and is not transferable to anyone who may subsequently purchase the product. No other person or organisation shall be entitled to give any warranty promise on behalf of Phaedrus Audio.

Phaedrus Audio makes no other warranties, expressed or implied, of merchantability, fitness for a particular purpose or otherwise.

Phaedrus Audio's liability is limited to repair or replacement by Phaedrus Audio, at its sole discretion and, in no event, will Phaedrus Audio be liable for any direct, indirect, special, incremental or consequential damages resulting from any defect in the product, including lost profits, damage to property and, to the extent permitted by law, damage for personal injury, even if Phaedrus Audio has been advised of the possibilities of such damages.

For any hardware defects experienced by the customer while the product is under warranty, Phaedrus Audio will incur the shipping cost to the customer and the customer is responsible for the shipping costs to Phaedrus Audio designated after sales service office.

***Warranty service conditions are subject to change without notice. For the latest warranty terms and conditions and additional information regarding Phaedrus Audio's limited warranty, please see complete details online at [www.phaedrus-audio.com](http://www.phaedrus-audio.com).***