## Current Equipment Type

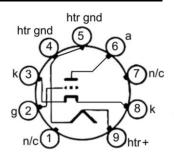




# TYPE: **6072M (12AY7 )** B9A LOW-NOISE AUDIO TRIODE

The Phædrus Audio 6072M is designed as a upgrade replacement for the 6072 (and 12AY7) tubes used in a variety of vintage and contemporary microphones: see technical specification below. For more information and enquiries, email <u>sales@phaedrus-audio.com.</u>

The Phædrus Audio 6072M Supertube<sup>™</sup> matches the dimensions of the original tube and is supplied as a standard B9A device.



6072M pinout (from below)

The Phædrus Audio 6072M is a single triode device: the second triode (present in the original tube envelope but not normally used) is not available. By careful selection of pinout, the Phædrus Audio 6072 features universal, straightforward One Touch<sup>™</sup> installation (see below).

## **6072M Supertube<sup>™</sup> Technical Specifications**

#### **Recommended operating conditions**

Heater voltage (current): 6.3V (150mA) Anode load: Typically, 100k HT Supply: 120V (nominal) Grid circuit:  $\approx 30M\Omega - 250M\Omega$ Cathode circuit: Supports grid or cathode biasing.

#### Notes (see applications diagram):

1. Only one half of 12V heater is present. Pins 4 and 5 are common. Heater voltage should be applied to pin 9 and either 4 or 5 should be grounded. Polarity of heater supply MUST be respected. <u>Pin 9 must be positive of</u> <u>pin 4 or pin 5.</u> Note that the 6072M heater current is slightly lower than one half of the original GL6072 tube; equivalent to half a standard 12AY7 tube which is 150mA at 6.3V. 12V heater mode NOT supported.

2. Cathode connections can remain undisturbed in all installations. In new applications, ground k.

# $2\frac{3^{"}}{16}$ MAX. $T = \frac{1}{2}$ $1\frac{9^{"}}{16} + \frac{3^{"}}{32}$ SMALL- BUTTON 3-PHNBASE

EIA 6-2



Version 2.0 - October 2018



Before using a Phaedrus Audio Electronic Tube, please read carefully the specifications and applications information in the datasheet. Improper installation or failure to respect parameter limits may cause damage to the component, modify its characteristics and decrease reliability and useful life. Phaedrus Audio's Limited Warranty does not extend to any Phædrus Audio product that has been damaged or rendered defective due to accident, misuse, or abuse. See <a href="http://www.phaedrus-audio.com/phaedrus-t&cs.htm">http://www.phaedrus-audio.com/phaedrus-t&cs.htm</a> for Phaedrus Audio's latest Terms and Conditions.

#### PHYSICAL DIMENSIONS

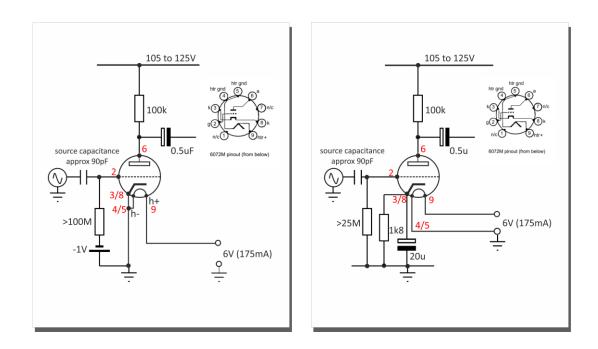




TYPE: **6072M (12AY7)** B9A LOW-NOISE AUDIO TRIODE

## **Applications information**

Below two typical applications for the 6072M are illustrated. The fixed (grid) bias scheme is typical of the AKG C12 microphone and its clones. The cathode bias version is typical of the ELA M250/1E microphones and its derivatives. The Phædrus 6072M is suitable for either circuit configuration.



## **IMPORTANT**

The Phaedris Audio 6072M (12AY7) Gold Dot Supertube<sup>™</sup> is NOT a general replacement for the 12AY7 or 6072 tube in applications other than microphones. If in doubt contact: <u>sales@phaedrus-audio.com</u>





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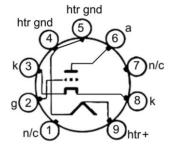




# TYPE: **6072M (12AY7)** B9A LOW-NOISE AUDIO TRIODE

## **One Touch<sup>™</sup> Installation** - Information for Microphone Technicians

The pinout of the Phædrus Audio 6072M is NOT IDENTICAL to the standard tube. By careful pinout design, <u>only one</u> <u>wire connection ever needs to be changed</u>, no matter how the tube was wired before or even which ½ of the tube was used! Work through the following CHECKLIST.



Phædrus Audio 6072M Installation CHECKLIST.

6072M pinout (from below)

Work around the base of the tube (no tube fitted) and make <u>THE SINGLE change</u> <u>necessary.</u> Complete in order.

**Pin 1.** If the anode (plate) load is connected to this pin, it will need to be moved to pin 6. This pin may be left open circuit once the connection is moved. The ground will need to be removed from pin 6 if it is present. If pin 1 is grounded, no change.

**Pin 2.** If the capsule connection is made to this pin, no change. If pin 2 is grounded, continue with check-list.

Pin 3. No change to this pin.

Pin 4. Verify that this pin is grounded (or open circuit).

Pin 5. Verify that this pin is grounded (or open circuit).

Pin 6. No change to this pin.

**Pin 7.** If the capsule connection is made to this pin, it will need to be moved to pin 2. This pin may be left open circuit once the connection is moved. The ground will need to be removed from pin 2 if it is present.

Pin 8. No change to this pin.

Pin 9. Verify that this pin is fed with the heater supply.



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