



# Dynavector DRT XV-1s mono cartridge

## Instruction manual

### ■ Description

The new Dynavector XV-1s mono cartridge has been developed due to enthusiastic requests from mono record lovers, worldwide. The XV-1s mono has not been designed as a typical, old fashioned mono cartridge, but developed as a true high fidelity component. It is designed to provide the highest performance and extract the greatest musical expression possible from mono records. The XV-1s mono follows from the innovative design and technology of the acclaimed XV-1s stereo cartridge and incorporates the following details and considerations:

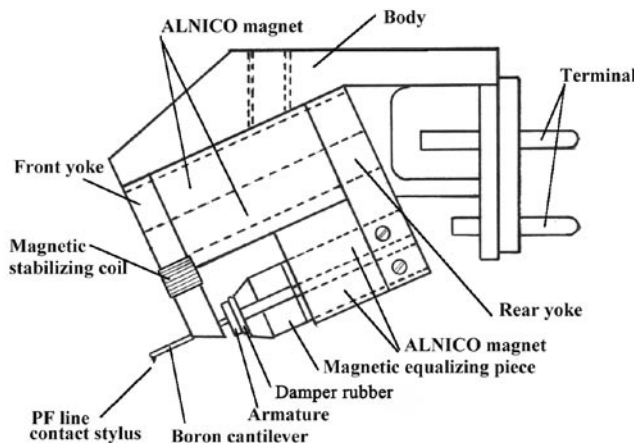
### ■ Features

#### 1. Compliance in horizontal and vertical directions

Musical information is recorded in the horizontal direction on mono records. Tracking the vertical elements will only lead to extraneous noise or potential damage of the record groove. Given this, the compliance of the XV-1s mono in the vertical direction has been set considerably lower compared to that of the horizontal direction. A somewhat "thin" and harsh sound is often experienced when playing a mono record with a normal stereo cartridge. A stereo cartridge picks up both the horizontal and the vertical groove information so that both the music and unnecessary noise are reproduced.

#### 2. Special coil bobbin design

The corner of the coil bobbin (armature) of the stereo cartridge is oriented at a 45 degree angle to the record surface in order to pick up both horizontal and vertical groove modulations. With the XV-1s mono, the bobbin is rotated to be parallel to the record surface. Therefore, sensitivity to vertical modulation is reduced dramatically and horizontal modulation is converted directly to the desired electrical signal. This is the most important feature of the mono cartridge.



#### 3. Bifilar wound coil

A typical mono cartridge has two output terminals (hot and ground) with a single coil. The XV-1s mono has been designed with the four output terminals having bifilar wound coils. The bifilar wound coil means that dual separate monaural coils are connected respectively to the left and right channel terminals.



As such, a typical stereo phono head amplifier/stereo phono preamplifier can be used as is without issues of hum, noise or ground loops.

#### 4. Innovative magnetic circuit design

The magnetic circuit design of the XV-1s mono follows directly from the innovative XV-1s stereo cartridge. Ideal characteristics have been achieved through an unparalleled magnetic circuit featuring 8 Alnico magnet rods. The XV-1s mono also utilizes DV's flux damper (patent) that reduces magnetic distortion. This innovative circuit provides a presentation that is clear, natural and musically expressive like no other cartridge before.

#### 5. Stylus tip and cantilever

The cantilever assembly for the XV-1s mono is of solid boron with a line contact stylus profile, similar to that of the XV-1s stereo cartridge. A line contact stylus profile is unusual for a mono cartridge, but the depth of grooves remain constant on mono records and the shape of the groove on mono records is at the same average level found on stereo records. Properly implemented, a modern line contact stylus can be used with mono records with great success. As well, the XV-1s mono cartridge will not damage a stereo record due to its moderate vertical compliance.

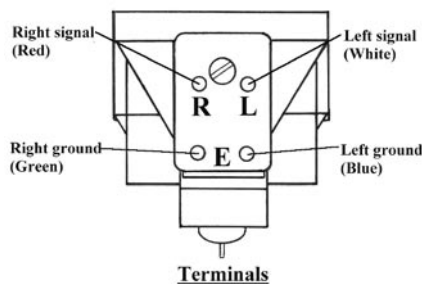
## ■ Fixing to the headshell

The thread size of the mounting holes of the XV-1s mono is M2.5, so please use the enclosed screws to mount the cartridge. Please note that the mounting holes are 4mm depth. Screws that are too long will damage the cartridge body.

The cartridge should be aligned according to the arm manufacturers instructions. They will normally supply a protractor for this purpose.

## ■ Connection

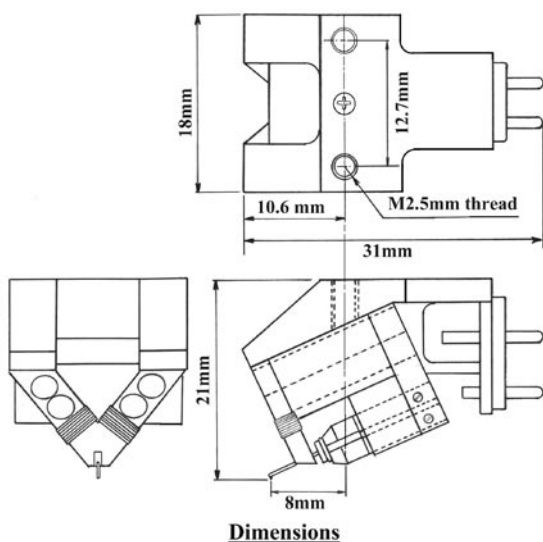
The connection is similar to the stereo cartridges. Connect the lead wires from the headshell to each pin shown below. Best performance is obtained if you use the enclosed lead wires that are 6N copper wire.



Please note that you should check "Absolute Phase" to your systems when you could not obtain a good result. Because XV-1s is a very sensitive cartridge to "Absolute Phase".

## ■ Phono head amplifier

You can use the stereo phono head amplifier or stereo phono preamplifier. Please set the stereo position of the phono device as same as playing stereo cartridge because of XV-1s mono having bifilar wound coils. The best performances is assured if you use the Dynavector PHA-200 phono head amplifier.



## ■ Stylus Cleaning

Keep your records clean. Dust causes record wear and sonic distortion. When you clean the stylus, use the brush supplied. Brush only from back to front in order to avoid damage. If a dark deposit like tan should appear on the stylus tip, use a fine brush with a small quantity of alcohol and distilled water mixed 50/50.

Commercial cleaning solutions or vibrators can cause stylus damage.

## ■ Stylus Replacement and Warranty

Dynavector operate an exchange scheme for the XV-1s mono which entails rebuilding the cartridge. The rebuild includes replacing all moving parts, ie the cantilever and stylus assembly as well as the coils and suspension. This allows replacement stylus cost to be minimised.

To qualify for an exchange please return the cartridge to your dealer or national distributor.

The cartridge is guaranteed for a period of one year from date of purchase against electrical and mechanical defects excluding user's mishandling or abuse.

If there is any problem please consult your authorised dealer first for service. Should it prove necessary to return the cartridge to the factory, you should return the defective cartridge to your dealer or national distributor, together with the warranty card. Please keep your original packing for safe shipping.

## ■ Specifications

Type	: Low output moving coil mono cartridge with multi alnico magnets and the flux damper
Output voltage	: 0.26mV (at 1KHz, 5cm/sec. horizontal)
Frequency response	: 20 - 50,000Hz
Compliance	: $6 \times 10^{-6}$ cm/dyne (horizontal)
DC resistance	: R= 7 ohms
Stylus	: Line contact PF (0.03 x 0.007mm)
Cantilever	: 6mm length 0.3mm dia. solid boron
Recommended load	: more than 30 ohms
Tracking force	: 2.6 - 3.2 grams
Weight	: 12.6grmas

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