

RG-1 Reference Motor Drive

User Manual



At The Heart Of The Most Advanced Record Player In the World
RG-1 Reference Record Player | Reference Tonearm | Reference Motor Drive

INTRODUCTION

Thank you for your purchase of the RG-1 Reference Motor Drive. Please study these instructions carefully. Your RGMD is designed and manufactured to the highest standards and its correct installation will greatly enhance the sound quality of your record playing system rewarding you with many years of unparalleled listening pleasure.

This manual is divided into the following sections:

- Safety Instructions (Accompanying card)
- Introduction
- Cautions
- Installation, Connections & Controls
- Minimum Motor Noise Adjustment & Setup
- Operation
- Guarantee
- Specifications
- Records & Notes

Unpacking

Included in the packing of your RG-1 Motor Drive you will find:

- AC mains lead fitted with the correct mains power plug for your country
- A Double Pulse-HB Motor Link
- Motor Noise Adjustment Trimmer Tool
- RG-1 Motor Drive User Manual, Micro Fibre Cleaning Cloth and Warranty Card

After removing these items please retain all packing materials. Correct packing is necessary for safe transportation of your Vertere RG-1 Reference Motor Drive.

Maintenance & Cautions **IMPORTANT**

After disconnecting RGMD from the mains supply, it may be cleaned with a lightly dampened soft cloth or chamois leather. **Avoid using abrasives or solvents.**

Important Note:

Disconnect the unit from the mains supply before cleaning. **DO NOT** use fluids to clean the unit. Especially when cleaning the underside where there are setup trimmer access & vents cut-outs.

It is important that at no time any fluid gets inside the unit.

Take extreme care not to damage the setup trimmers or drop any item inside the unit when carrying out this procedure.

***** THERE ARE NO USER SERVICABLE PARTS INSIDE THE RG-1 MOTOR DRIVE.**

EU Directives

This product is designed to comply with the legal provisions of EU Directives 89/3336/EC and 72/23/EC. The standards which have been applied are those which were in force at the time of the introduction of this product.

This product bears the CE mark.

This product is compliant to EN 60065.

This product must be earthed.

Please ensure that other equipment connected to it is earthed according to the manufacturer's instructions.



VERTERE™

AC MAINS SUPPLY

Your RG-1 Reference Motor Drive is set to operate from a fixed supply voltage which is marked on a label next to the mains input plug/switch. Before connecting the mains lead please check that your mains supply corresponds to this label as below:

230V Products	Voltage Range: 220V - 240V
115V Products	Voltage Range: 100V - 120V

The mains lead supplied with this product has an IEC mains socket which plugs into the IEC connector on the unit's rear panel. The other end is normally attached to the appropriate mains plug for your country. In the UK this is the standard UK10A plug.

This plug should ordinarily not be removed from the lead. If you do remove it, please dispose of it safely so that it cannot be plugged into a mains socket whilst in a potentially dangerous condition. We suggest that you obtain from your dealer a complete replacement lead.

Should you move to another area where either the mains voltage or the mains plugs are different from those as supplied with your RG-1 Reference Motor Drive, please contact the appointed Vertere distributor for assistance.

Please observe correct mains polarity at all times.

The RG-1 Reference Motor Drive mains fuses are located on the rear panel next to the IEC mains connector. They must only be replaced by the fuse of the type and rating as described on the voltage and fuse rating marking on the rear and bottom panels of the chassis.

This product requires connection to earth (ground). The earth wire (in the UK this is colour coded green/ yellow) of the mains cable supplied with your RG-1 Reference Motor Drive must be connected to a suitable earth/grounding point established for this purpose by your electricity supply company. If you are in any doubt, consult a qualified electrician.

If the equipment is likely to be unused for some time, unplug it from the mains supply.

GENERAL CAUTIONS

FCC WARNING

This equipment may generate or use Radio Frequency energy. The user may lose the right to operate this equipment if unauthorised modifications are made.

INTERFERENCE

Properly installed, this unit should not cause harmful interference to radio communications. There is, however, no guarantee that such interference will not occur in a specific installation. If interference arises (which you can determine by switching the unit off and on) you could try to remedy matters by the following:

- Re-orient or re-locate the receiving antenna
- Increase the distance between the RG-1 Reference Motor Drive and receiver
- Connect the unit to a different mains circuit from that of the receiver
- Consult your Vertere appointed dealer or an experienced Radio/TV technician for help and advice

LOCATION

Your Vertere RG-1 Reference Motor Drive should be located in a well ventilated area and kept away from sources of heat, dust and humidity and direct sunlight.

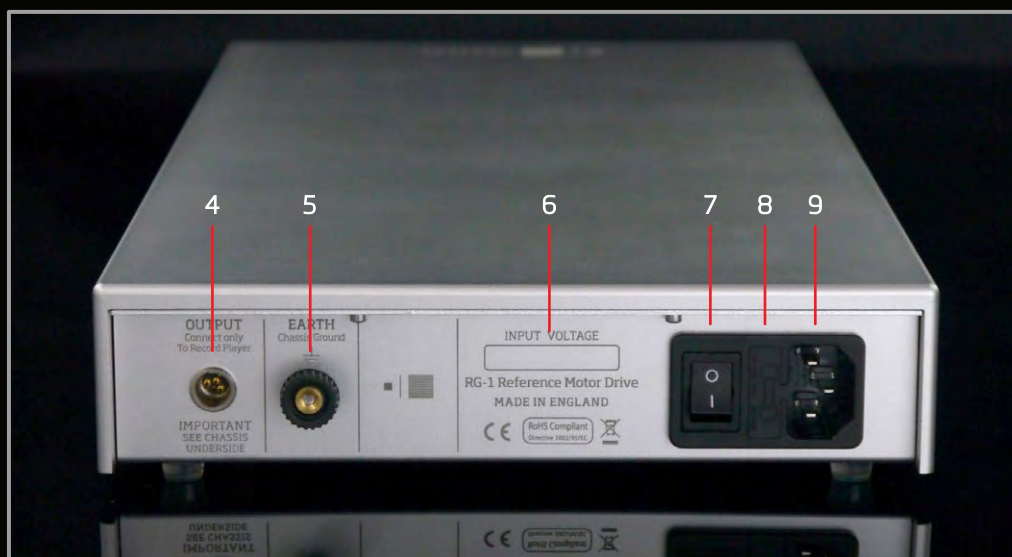
The RG-1 Reference Motor Drive may be positioned either as a free standing unit or alongside another audio/video product.

Never place the RG-1 Reference Motor Drive on carpet or any surface likely to hinder normal ventilation.

This unit contains no user serviceable parts. Do Not remove any panels or attempt to service it yourself. Unauthorised servicing will void the warranty.

RG-1 Reference Motor Drive

Installation | Connections | Controls



- | | |
|--|---------------------------|
| 1. SLEEP OPERATION SWITCH | 5. GROUNDING TERMINAL |
| 2. FINE SPEED ADJUSTMENT SELECTOR | 6. MAINS VOLTAGE LABEL |
| 3. 33 45 SPEED SELECTOR SWITCH | 7. MAINS POWER SWITCH |
| 4. RG-1 MOTOR LINK CABLE OUTPUT SOCKET | 8. MAINS INLET FUSE |
| | 9. MAINS INLET IEC SOCKET |

INSTALLATION

Carefully place the supplied cloth on a solid surface no more than 0.5m away from the record player. It is important that during setting up you can easily reach and access both units with your hands. Now place the RG-1 Reference Motor Drive safely on its back on the cloth with easy access to the back input/output sockets and the bottom 33/45 motor noise adjustment trimmers.

CONNECTIONS

MOTOR LINK OUTPUT CONNECTION

Connect the Double Pulse-HB Motor Link cable to the Motor Link Output Socket (4) and securely attach the 'Ground' lead to the Ground Terminal (5) of the RG-1 Reference Motor Drive.

*** Please observe correct directionality.

CONNECTING THE MOTOR LINK CABLE TO THE RECORD PLAYER

Now connect the other end of the Double Pulse-HB Motor Link cable to the Motor Input Socket at the back of the RG-1 Record Player.

CONNECTING MAINS POWER

The moulded IEC connector of the supplied mains lead should be plugged into the Mains Inlet IEC Socket (9) on the back of the unit first and then plugged into the mains supply. The Mains Power Switch (7) is next to the mains IEC socket and it is normally left on.

If the unit is likely to be unattended for a long period, switch it off and unplug the mains lead from the wall. (As with all electronic components)



IMPORTANT NOTE

For best performance, it is recommended to use Vertere Pulse-HB Absolute Reference Mains Cable.

SWITCHING ON

Check that the front Panel Sleep | Operation Switch (1) is positioned to the left, on 'zz', and that the 33 | 45 Speed Selector Switch (3) is also positioned to the left, on '33'.

Now turn the Mains Power Switch (7) on.

Check that the Sleep | Operation, the Fine Speed Adjustment Selector dial & the 33 | 45 Speed Selector LED Indicators on the front are all illuminated.

Now push the Sleep | Operation Switch (1) to the right, on the 'Z', and the Platter should start turning at 33 rpm - the indicator will remain illuminated Green.

Push the 33 | 45 Speed Selector Switch (3) to the right, on '45', and the platter will rotate at 45 rpm and the indicator will now illuminate Red.

Please note:

The Sleep | Operation, Fine Speed Adjustment Dial & 33 | 45 Speed Selection LED Indicators are illuminated while the Mains Power Switch is on.

RG-1 Reference Motor Drive

CONTROLS



SLEEP | OPERATION

This switch toggles between Sleep and Operation modes. As shown above push to the left for sleep mode and push to the right for operation mode.

FINE SPEED ADJUSTMENT SELECTOR

RG-1 Reference Motor Drive provides fine speed adjustment in 7 discrete percentage increase and decrease steps - As below:

0.25%, 0.50%, 0.75%, 1.00%, 1.50%, 2.00% & 3.00%
Up or Down in both 33 & 45 settings.
See opposite



33 | 45

This switch toggles between 33 rpm and 45 rpm speed settings. As shown above push to the left for 33 rpm and push to the right for 45 rpm.

RG-1 Reference Motor Drive

Motor Noise Adjustment Procedure

RG-1 Reference Motor Drive allows independent motor noise adjust for 33 & 45 rpm speeds. This procedure is easily carried out while the RGMD is connected to the record player and switched on.

* With the RGMD placed on its back, select 33 rpm and set to 0.0%.

Ensure you can comfortably reach and adjust the underside multi-turn trim pots while being able to feel the motor noise with your other hand's index finger - See next page

* Using the trimmer adjustment tool provided, place and position it on the 'Phase - 33' trimmer screw head.

* Now gently place the other hand's index finger on top of the motor body while it is turning the platter. Feel the motor noise/vibration through the motor body - See next page

* Turn the trimmer clockwise and then anti-clockwise by a few turns. You should feel the motor noise/vibration increase and decrease while the trimmer is turned in opposite directions.

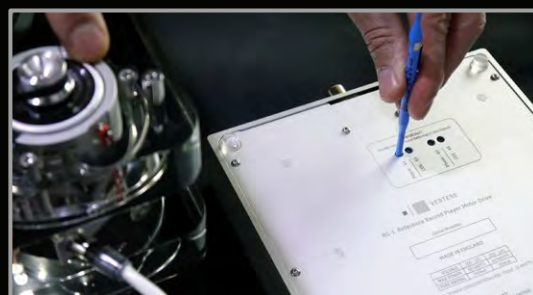
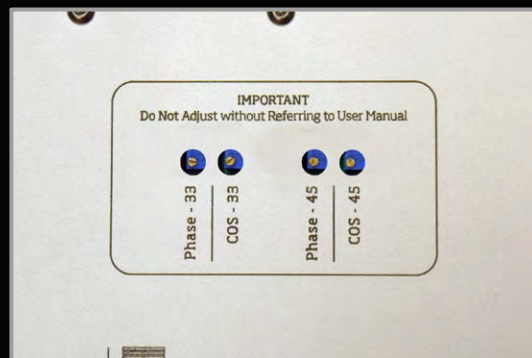
* Repeat and home in on the lowest motor noise/vibration point - the quietest position

* Now repeat this procedure on the 'COS - 33' trimmer.

* Once the quietest position is reached again, go back to the 'Phase - 33' trimmer and do the same. Repeating a couple of times by going to the 'COS - 33' & 'Phase - 33' trimmer backwards and forwards until the absolute quietest position is reached.

*** Now repeat the same for 45 rpm.

The RG-1 Motor Drive should then be set and matched to the RG-1 record Player motor for Absolute Reference Performance.



RG-1 Reference Motor Drive

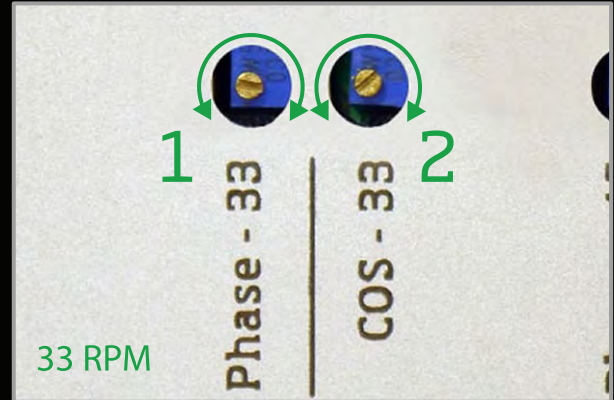
Motor Noise Adjustment Procedure

Select 33 - set at 0.0%

1. Adjust & Fine tune 'Phase - 33'
2. Adjust & Fine tune 'COS - 33'

Repeat steps 1 & 2 a couple of times while feeling with your finger for the lowest motor noise.

Home in onto the quietest motor noise position for 33 rpm.

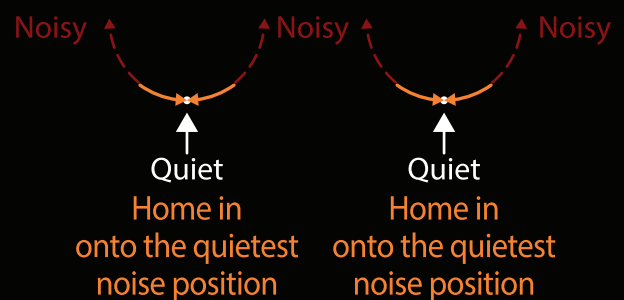
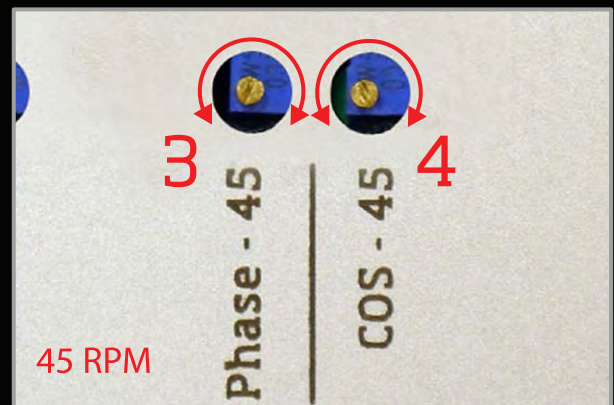


Select 45 - set at 0.0%

3. Adjust & Fine tune 'Phase - 45'
4. Adjust & Fine tune 'COS - 45'

Repeat steps 3 & 4 a couple of times while feeling with your finger for the lowest motor noise.

Home in onto the quietest motor noise position for 45 rpm.



RG-1 Reference Motor Drive

OPERATION

PLACEMENT OF THE RG-1 MOTOR DRIVE

Once the minimum motor noise adjustment procedure is completed the unit should be turned off and all connecting cables disconnected.

The motor drive can now be placed the right way up and located on its allocated shelf or equipment stand and all connecting cables carefully reattached. It is important to allow sufficient slack in both the motor link cable and the mains power cord to ensure proper connection and avoid any accidental damage to the motor drive or the record player.

VENTILATION

Thanks to RG-1 Motor Drive's solid aluminium cover/chassis and its large internal heatsink any generated heat is effectively dissipated to ensure safe operation of the unit. Although the unit does not run hot, it is important to have a minimum of 30mm around the motor drive to assist ventilation and safe running of the unit.



SWITCHING ON

Once the RG-1 Motor Drive is safely installed its time to switch the unit on, select the desired speed and enjoy the music.

Changing the speed is simply done by the speed selector switch and the sleep/operation switch stops the platter from rotating when required.



FINE SPEED ADJUSTMENT

The RG-1 Reference Motor Drive benefits from having the most advanced speed control system.

Its microprocessor controlled motor signals allow precise and stable speed selection to ensure optimum record playback and maximum enjoyment of the music.

However rarely, speed errors can occur during the recording, tape transfers or even cutting processes which can now be compensated for by RG-1 Motor Drive's fine speed adjustment.

On 33 or 45 rpm, the rotational speed can be decreased or increased in seven steps as show, by simply dialling the desired correction on the selector.

0.25%, 0.50%, 0.75%, 1.00%, 1.50%, 2.00% & 3.00%
Decrease or Increase in both 33 & 45 settings.

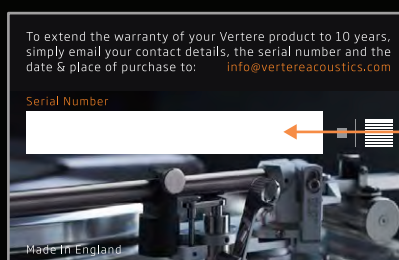


RG-1 Reference Motor Drive

GUARANTEE

Your Vertere RG-1 Reference Motor Drive is guaranteed against any defect in materials and workmanship for a period of two years from the date of purchase. You can extend this period to ten years by registering your warranty on Vertere Acoustics website - vertereacoustics.com

Make a note of the serial number(s) on your warranty card for future reference - please retain the card



Serial Number

This guarantee excludes:

1. Damage caused due to accident, misuse, neglect and incorrect installation, adjustment or repair.
2. General wear & tear.
3. Liability for damage or loss during transit from the retailer or purchaser to Vertere or its authorised distributor for the purposes of repair or inspection.

Carriage costs to Vertere shall be borne by the consignor.

All claims under this guarantee must be made through an authorised Vertere retailer.

If equipment returned for repair to Vertere is found on inspection to comply with the product specification Vertere reserves the right to make a charge for examination and return carriage.

There are no user serviceable parts inside the Phono Preamplifier.

Unauthorised servicing will void this guarantee.

10
YEAR
WARRANTY

SPECIFICATIONS

Type Record Player Motor Drive
All Circuits on Gold Plated PCB

Mode Selection Sleep or Operation

Speed Selection 33 rpm or 45 rpm

Power Supply Linear
x3 Toroidal Transformers

Fine Speed Adjustment Settings;

33 or 45 -3.00% to +3.00%
In 14 Steps - See Manual

Finish Silver

Dimensions 450 x 215 x 58mm
W x D x H (Incl. Selector & Feet)

Weight 4.10 Kg

Power Requirement 100-120 or 220-240 Vac
Factory Set

RG-1 Reference Motor Drive

RECORDS

FINE SPEED ADJUSTMENT SETTINGS

Make a record of fine speed adjustments of albums for future reference.

ALBUM	SIDE	TRACK	SPEED	ADJ. %
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	
	A B		33 45	



VERTERE™

RECORD PLAYING SYSTEMS

RG-1 Reference Groove Record Player
SG-1 Standard Groove Record Player
MG-1 Magic Groove Record Player

TONEARMS

Vertere Reference Tonearm **New Gen.**
SG-1 **MkII** Tonearm PULSE-HB Internal Wiring
SG-1 **MkII** Tonearm Standard PULSE Internal Wiring

ANALOGUE INTERCONNECT CABLES

PULSE-HB
PULSE-R
PULSE-B
D-Fi
RCA, XLR Balanced, DIN & 5-Pin Tonearm

SPEAKER CABLES

PULSE-HB
PULSE-X Reference
PULSE-X
PULSE-XminiS
D-Fi
4mm Banana & Spade - Single Ended Or Bridged Balanced

DIGITAL INTERCONNECT CABLES

PULSE-HB
PULSE-R
PULSE-B
D-Fi
USB TypeA, TypeB, Mini, Micro, Ethernet RJ45
COAX-75 Ohm RCA & BNC, AES/EBU Balanced XLR

MAINS POWER CABLES

PULSE-HB
UK, EU, US: IEC & IEC 20A

PHONO PREAMPLIFIER

PHONO-1 MkII

RECORD PLAYER SUPPORT

STAGE-1 REFERENCE ISOLATION PLATFORM

EQUIPMENT SUPPORT

STAND-1 REFERENCE EQUIPMENT SUPPORT



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