



THE RECORD PLAYER

imperium Precision Motor Drive



USER MANUAL



Sleep | Power

0.75 0.25 0% 0.25 0.75 +

33 | 45

Imperium
PRECISION MOTOR DRIVE

User Manual

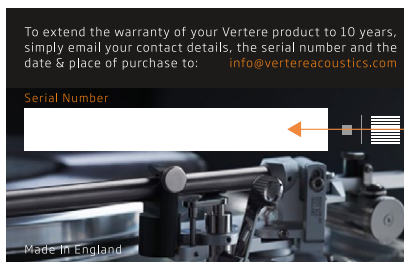
Introduction

Thank you for your purchase of the **imperium** Precision Record Player Motor Drive. Please study these instructions carefully. Your **imperium** motor drive 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 listening pleasure.

Guarantee

Your Vertere **imperium** 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 the Vertere website - vertereacoustics.com

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



Serial Number(s)

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 your motor drive.

Unauthorised servicing will void this guarantee.

10
YEAR
WARRANTY

This product is designed to comply with:

Electromagnetic Compatibility Directive 2004/108/EC

Restriction of Hazardous Substances (RoHS2) Directive 2011/65/EU

Waste of Electrical and Electronic Equipment Directive 2012/19/EC

This product bears the CE & UKCA mark



Standards applied are those which were in force at the time of the introduction of this product.

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

Products that display the crossed-out wheeled bin logo cannot be disposed of as domestic waste.

These products must be disposed of at facilities capable of re-cycling them and appropriately handling any waste by-products.

Contact your local authority for details of the nearest such facility. Appropriate recycling and waste disposal helps conserve resources and protects the environment from contamination.

Maintenance

After disconnecting the unit from the mains or its dedicated power supply, the unit may be cleaned with a lightly dampened soft cloth or chamois leather.

Avoid use of abrasives or solvents.

AC MAINS SUPPLY

Your **imperium** 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 **Redline** mains lead supplied with this product has an IEC mains connector which plugs into the IEC mains socket 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 UK13A 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 **imperium** Motor Drive, please contact the appointed Vertere distributor or Vertere for assistance.

Please observe correct mains polarity at all times.

The **imperium** 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 underside of the unit.

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 **imperium** 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 **imperium** 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 **imperium** Motor Drive should be located in a well ventilated area and kept away from sources of heat, dust and humidity and direct sunlight.

The **imperium** Motor Drive may be positioned either as a free standing unit or alongside another audio/video product.

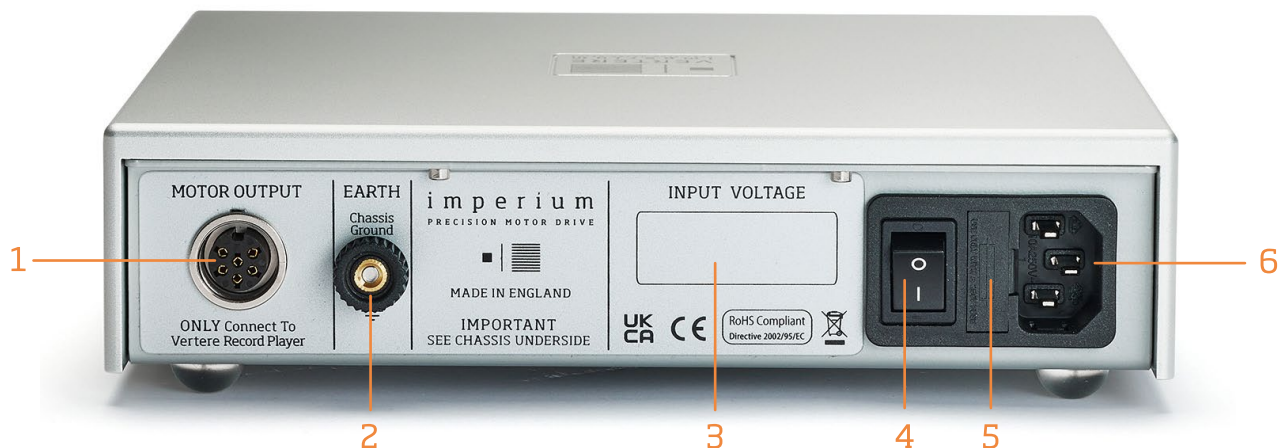
Never place the **imperium** Motor Drive on carpet or any surface likely to hinder normal ventilation.

This unit contains no user serviceable parts. Do Not remove any panels or attempt to service it yourself.

Unauthorised servicing will void the warranty

User Manual

Rear Panel



- | | | |
|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------|
| 1 Motor Drive Output Socket
ONLY connect using the Vertere dedicated Motor Link Cable | 3 Mains Input Voltage
Only connect to mains voltage as indicated | 5 Fuse Holder & Fuse
See underside for more information |
| 2 Optional Earthing Point
Connect to a suitable earth terminal ONLY if necessary | 4 Mains Power Switch | 6 Mains Inlet IEC Socket |

Front Panel

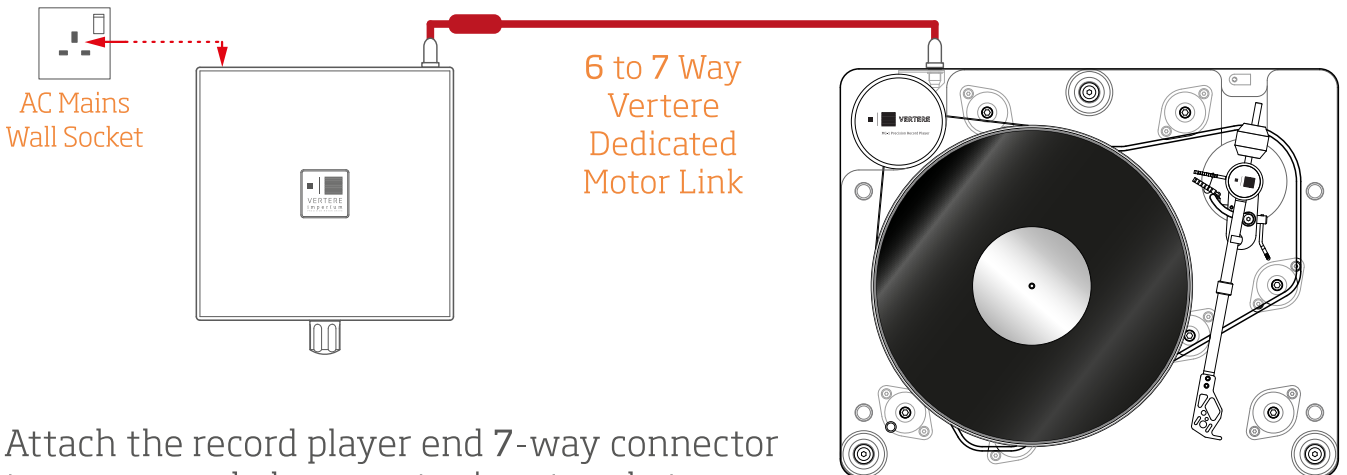


- | | |
|-------------------------------------------------------------------------|--------------------------------------------------------------|
| 7 Mode Indicator LED | 10 Speed Selector Switch |
| 8 Mode Switch | 11 Speed Indicator LED
Green for 33 rpm
Red for 45 rpm |
| 9 Fine Speed Adjustment Selector
-0.25%, -0.75%, 0.0, +0.25%, +0.75% | |

User Manual

Connecting Motor Drive To Record Player

Carefully attach the supplied dedicated motor link cable to the output socket (1) on the rear of the unit. Observe direction: 6-way to 7-way.

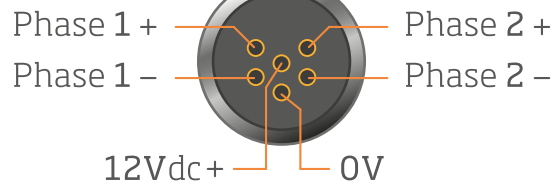


Attach the record player end 7-way connector to your record player motor input socket.

Only applicable to 2021 models onward - record players with 7-way motor power input sockets. Please refer to your record player user manual.

Motor Output Socket

ONLY connect using the Vertere Dedicated Motor Link Cable

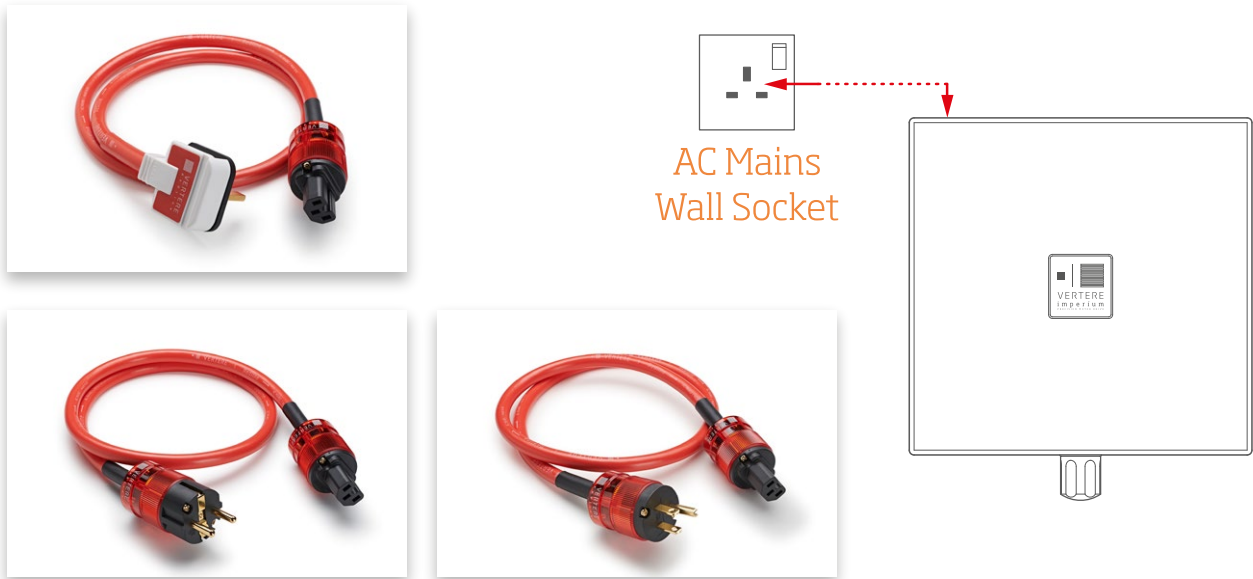


6 to 7 Way Vertere Dedicated Motor Link Cable

CONNECTING MAINS POWER

Plug the IEC connector of the **Redline** mains lead supplied into the Mains Inlet IEC Socket (6) on the back of the unit first and then plug the other end into the mains supply. The Mains Power Switch (4) is next to the mains IEC socket and can be 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)



Redline Mains Cable | Shown only UK, EU & US

SWITCHING ON

Check that the front Panel **Sleep | Power** Switch (8) is positioned to the left, on **Sleep**, and that the **33 | 45** Speed Selector Switch (10) is also positioned to the left, on '33'.

Now turn the Mains Power Switch (4) on.

Check that the **Sleep | Power** LED Indicator (1) on the front is illuminated - **White**.

Now push the **Sleep | Power** Switch (8) to the right, on the '**Power**', and the Platter should start rotating at **33** rpm - the Speed LED Indicator (11) will be illuminated - **Green**.

Push the **33 | 45** Speed Selector Switch (10) to the right, on '**45**', and the platter will rotate at **45** rpm - the Speed LED Indicator (11) will be illuminated - **Red**.

Note: The **Sleep | Power** LED Indicator is illuminated while the Mains Power Switch is on.

IMPORTANT NOTE

For **best** performance, it is recommended to upgrade the mains cable to Pulse-HB or HBS.

SLEEP | POWER

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

imperium Precision Motor Drive provides fine speed adjustment in 5 discrete percentage increase and decrease steps - As below:

-0.25%, -0.75%, 0.0%, +0.25%, +0.75%

Up or Down in both 33 & 45 settings.

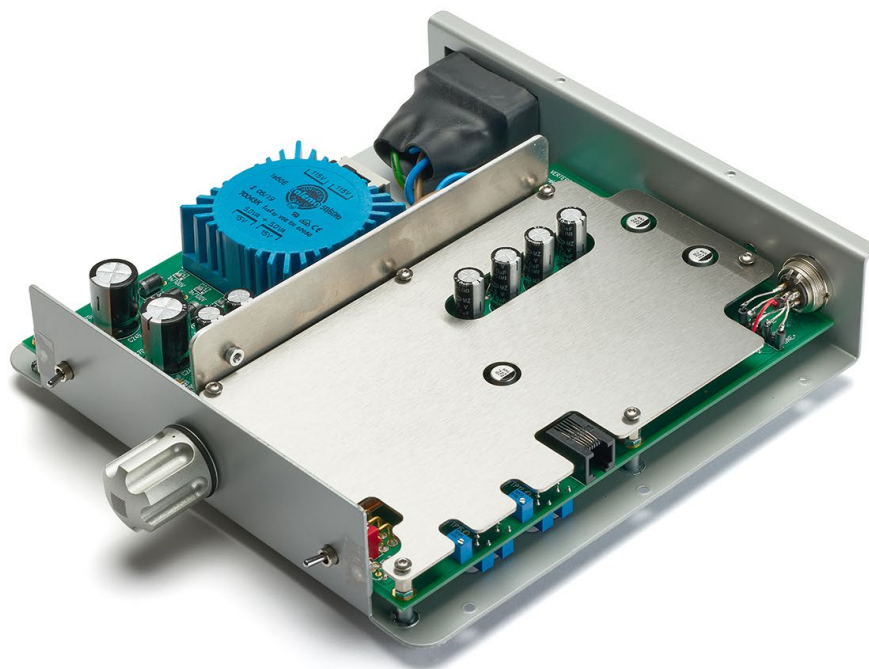
This feature can address minor speed errors which can occur during the tape recording, tape transfer and even cutting process.

Thanks to the advanced microprocessor based design of the imperium Precision Motor Drive circuit, all selected speeds would be provided with a fixed frequency for the drive that ensures constant speed - this is generally not the case with variable speed control designs.



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.



Specifications

Technology	Microprocessor Controlled & Programmable Power Supply & Main Circuit on Gold Plated PCB
Input Power	100-120V or 220-240 Vac (50/60 Hz)
Internal Power Supply	Linear, Int. Switchable Fully Regulated Main Power Rail Plus two further Regulated Supplies
Output Drive	Bi-phase Bridged Amplifier
Output	Precision Sine & Cosine Waves
Speed Selection	33 45 rpm
Fine Speed Adjustment	-0.25%, -0.75%, 0.0, +0.25%, +0.75
Output Adjustment	33 & 45 Phase Angle & Level
Output Voltage	17.8 Vac rms (Two Phases)
LED Illumination Output	12Vdc (Fixed)
THD+N	<0.08%
Circuit Shielding	Triple Shielded
Motor Link Cable	Dedicated Two phase + LED Power
Power Consumption	< 30 Watts Max.
Dimensions	245 x 214 x 58 (WxDxH)mm
Net Weight	2.6 Kg

All specifications are liable to change without prior notice. E & OE

Made in England

Page 9

Motor Noise Adjustment & Fine-tuning

imperium Precision Motor Drive has adjustment facility to ensure the record player motor is running at its optimum with minimum motor noise/vibration. This procedure is only applicable to motor drives which are supplied on their own as upgrades.

All adjustment and fine-tuning must be carried out by Vertere approved and qualified personnel only.

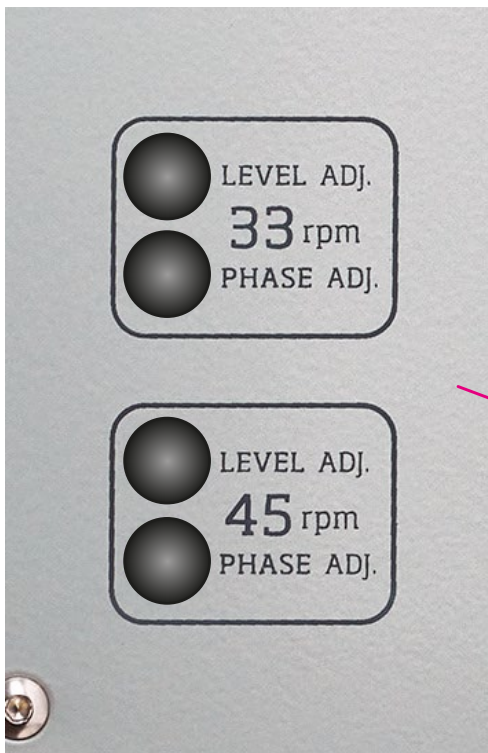
IMPORTANT NOTE:

All imperium Motor Drives supplied with Vertere record players have already their motor noise factory fine-tuned and thus this procedure **DOES NOT** apply to those.

Adjustment access holes are fitted with blanking plugs.

DO NOT REMOVE THESE PLUGS

Only Vertere approved and qualified personnel should access if any adjustment is required.



SPEED ADJUSTMENT SETTING RECORD

Make a record of the 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	
	A B		33 45	
	A B		33 45	



VERTERE™

RECORD PLAYING SYSTEMS

RG-1 Reference Groove Record Player
SG-1 Super Groove Record Player
MG-1 **MkII** Magic Groove Record Player
DG-1 Dynamic Groove Record Player

MOTOR DRIVES

RG-1 Reference Motor Drive
imperium Precision Motor Drive
Tempo Precision Motor Drive

TOPEARMS

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

PHONO CARTRIDGES

Mystic Moving Coil Cartridge
s a b r e HD Moving Magnet Cartridge
Magneto Moving Magnet Cartridge

PHONO PREAMPLIFIER

PHONO-1 **MkII**

ANALOGUE INTERCONNECT CABLES

PULSE-HB
PULSE-**veRum**
PULSE-**Redline**
D-Fi
RCA, XLR Balanced, DIN & 5-Pin Tonearm

SPEAKER CABLES

PULSE-HB
PULSE-XS Reference
PULSE-XS
PULSE-**Redline**
7mm, 4mm Banana & Spade - Single Ended Or Bridged Balanced

DIGITAL INTERCONNECT CABLES

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

MAINS POWER CABLES & DISTRIBUTION

PULSE-HB, PULSE-HBS & HB MAINS DISTRIBUTION BLOCK
PULSE-**Redline**
UK, EU, US: IEC & IEC 20A

RECORD PLAYER SUPPORT

STAGE-1 REFERENCE ISOLATION PLATFORM

EQUIPMENT SUPPORT

STAND-1 REFERENCE EQUIPMENT SUPPORT



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