



MANUAL

CASPIAN RPP / CASPIAN RPM / CASPIAN VSC & VSC 2S



Congratulations

*on the purchase of your Roksan Caspian product.
Your audio component is designed and manufactured to
the highest specifications and rigorously tested to offer
many years of reliable and high quality musical enjoyment.*

*Correct installation and operation of the product will have a
significant influence on the performance of your audio sys-
tem and ensure many years of trouble-free listening.*



INTRODUCTION

THIS MANUAL IS FOR THE FOLLOWING CASPIAN SERIES PRODUCTS:

- RPP (Reference Phono Preamplifier)
- RPM (Reference Speed Control)
- VSC (Vinyl System Control, comprising 1 x RPP module, 1 x RPM module and 1 DSC1.5 power supply)
- VSC 2S (Vinyl System Control 2S, comprising 1 x RPP module, 1 x RPM module and 2 X DSC1.5 power supplies)

UNPACKING

Included in the packing of your Caspian analogue product you will find the following:

- One mains lead fitted with the correct mains power plug for your region
- One information pack and warranty card

After removing the product and the above items please retain **ALL** packing materials. Correct packing is required for the transportation of your product.

MAINTENANCE

After disconnecting the Caspian RPP/RPM/VSC from the mains supply, the cabinet and front panel may be cleaned with a dry lint-free cloth. Avoid using abrasive substances or solvents.

Roksan Audio Ltd declares that the apparatus "Caspian VSC / RPP / RPM" complies with the essential requirements and other relevant provisions of Directive 1999/5/EC.



AC MAINS SUPPLY

Your Roksan Caspian product is set to operate from a fixed supply voltage which is marked on a label next to the mains input plug. 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 the country.

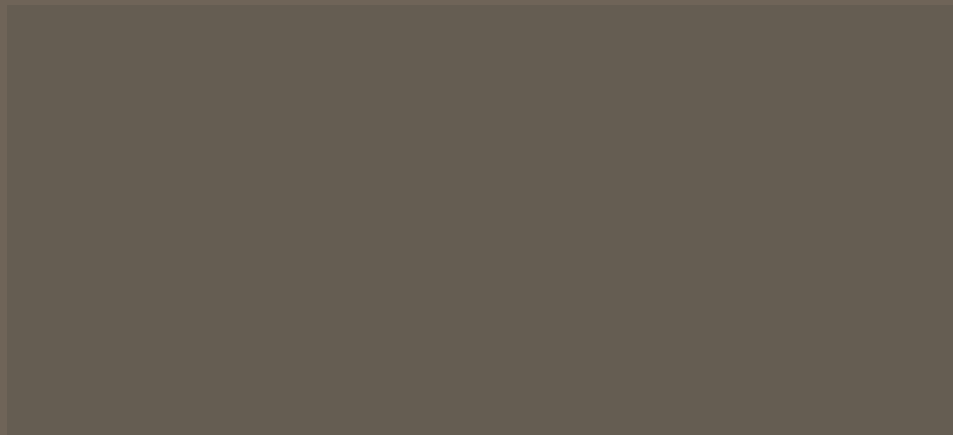
The plug should not normally be removed from the lead. If you DO remove it, please dispose of it safely so it cannot be plugged into a mains socket whilst in a potentially dangerous condition. We suggest you obtain a new lead from your dealer.

Should you move to an area that has a different mains voltage or plug from that originally supplied, please contact your Roksan dealer for assistance.

PLEASE OBSERVE CORRECT MAINS POLARITY AT ALL TIMES.

The mains fuses are located on the rear panel next to the IEC mains connector. They must only be replaced with a fuse of the type and rating as described on the fuse rating label on the rear panel.

These products require connection to earth (ground). The earth wire (green/yellow in the UK) of the mains cable supplied with your product must be connected to a suitable 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.





LOCATION

Your Caspian analogue product should be located in a well-ventilated area and kept away from sources of heat, dust and humidity and direct sunlight.

It may be positioned either as a freestanding unit or alongside another A/V product. Never place it on a carpet or any surface likely to hinder normal ventilation.

**DO NOT REMOVE ANY PANELS OR TEXT TO SERVICE IT YOURSELF.
UNAUTHORIZED SERVICING WILL VOID THE WARRANTY.**

ROKSAN CASPIAN VSC (& VSC 2S)

THE VINYL SYSTEM CONTROL WILL HAVE ONE OF TWO OPTIONS FITTED:

Option 1. - VSC

RPM Reference Speed Control module
RPP Reference Phono Preamplifier module
1 x DS1.5 power supply to power both of the above

Option 2. VSC 2S (recommended for optimum performance)

RPM Reference Speed Control module
RPP Reference Phono Preamplifier module
1 x DS1.5 power supply for RPM module
1 x DS1.5 power supply for RPP module

When option 2 (VSC 2S) is chosen by the customer then the relevant LED indicator (2) on the front panel will indicate that a second power supply is installed and in operation. With option 1 the light is off.

PLEASE NOTE THAT YOUR VSC CAN BE UPGRADED TO A VSC 2S AFTER PURCHASE.



INSTALLATION CASPIAN VSC



1. Mains power on/off switch
2. 2nd power supply indicator (illuminated with VSC 2S version only)
3. Speed control button (33rpm/45rpm)
4. Speed control indicator
blue/indigo = on/off
blue/red = 33rpm/45rpm
5. Speed control on/off button
6. RPP module indicator



7. Tonearm 'ground' terminal
8. RPP right channel output
9. RPP right channel Input
10. RPP left channel Input
11. RPP left channel output
12. RPM speed control output lead (to turntable)
13. Voltage and fuse rating label
14. IEC mains cable socket
15. AC mains fuseholder



SETUP

CONNECTING MAINS POWER

PLEASE REFER TO THE FRONT PANEL VIEW.

The moulded IEC connector of the supplied mains lead should be plugged into the socket on the rear of the unit first and then plug into the mains supply. The mains power switch is on the rear panel of the VCS. This switch is normally left on. If the unit is likely to be unattended for a long period, switch off and unplug the mains lead from the wall.

INPUT AND OUTPUT CONNECTIONS

IMPORTANT: BEFORE ANY CONNECTIONS ARE MADE, ENSURE THE UNITS ARE SWITCHED OFF AND DISCONNECTED FROM THE MAINS.

RPM OUTPUT LEAD: Connect the RPM output lead to the Xerxes turntable. Simply line up the four pins with the connector 'key', insert fully and secure by tightening the locking nut finger tight.

RPP: Connect the tone arm cable left and right RCA plugs to the left and right inputs and securely attach the 'ground' lead to the 'ground' terminal. Then connect the left and right output sockets on the phono amplifier to the left and right (line level) inputs of your pre or integrated amplifier.

IMPORTANT NOTE: For optimum performance, it is recommended to use high quality inter-connect cables such as ROKSAN HDC-02A High Definition Analogue Cable terminate.

RPP REFERENCE PHONO AMPLIFIER MODULE

To optimize the performance of your phono cartridge there are three gain, four input impedance and one input capacitance selections on the RPP module.

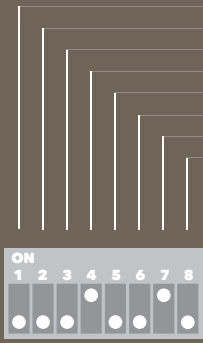
THE RELEVANT CARTRIDGE SETTINGS ARE CLEARLY MARKED AND DESCRIBED AS FOLLOWS. PLEASE MAKE A NOTE OF THIS.

IMPORTANT: The eight switches on each dip switch which set the desired selection for one channel only. Both sets must be identical for correct stereo output.



SETTINGS FOR MM OR MC CARTRIDGES

- Switch 1 – 5mV Setting Compensation Capacitor
- Switch 2 – 100pF Loading Capacitor (optional)
- Switch 3 – 10R Loading Resistor (optional)
- Switch 4 – 100R Loading Resistor (most MC's)
- Switch 5 – 1K Loading Resistor (some MC's)
- Switch 6 – 5mV Gain Setting (for MM with SW 1)
- Switch 7 – 1mV Gain Setting (for Shiraz)
- Switch 8 – 0.5mV Gain (most other MC's)

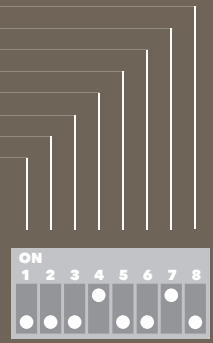


SHIRAZ MC
Switches 4 and 7 should be ON

CORUS MM (and other MOVING MAGNETS)
Switches 1 and 6 should be ON

Other MOVING COILS
Switches 4 and 8 should be ON

If no input load is selected the default is 47k and 47pF.
NOTE Both DIP Switches must be set identical.



(NOTE: example diagram shows the dip switch settings for a Shiraz MC. For other cartridges please refer to settings below)

If no input load selected, the default is 47K and 47 pF.
BOTH SETS OF DIPSWITCHES MUST BE IDENTICAL



OPERATION

SWITCHING ON

The mains power switch (No.1) is located on the underside of the VSC unit to the left. This switch should be left on for normal operation. If unattended for a long period, the mains power should be switched off and the leader disconnected from the main supply.

When switched on, your VCS display will illuminate the indicators of all fitted modules and the second power supply (if applicable).

USING THE CONTROLS

PLEASE REFER TO THE FRONT PANEL VIEW.

RPM REFERENCE SPEED CONTROL MODULE

The VSC has two push buttons on the front panel. One (No.3) selects between the speeds (33 and 45), the other (No.5) switches the power of the RPM speed control on or off. When the RPM is selected off the indicator will be indigo and when it is on, the indicator will be blue or red, depending on the speed setting. For 33rpm the light will be blue and it will indicate red for 45rpm.

SPEED & VOLTAGE ADJUSTMENT

The VSC has a highly advanced speed control that regulates the current to an extremely high level of accuracy. The factory settings are the following:

50Hz @ 33rpm

67.5 Hz @ 45rpm

This drives the platter speed at a level of extremely high accuracy. However, in the very rare occurrence of needing to adjust the speed the ability to micro-adjust is available. This reaches from 0% to 6.25% of the relevant speed (33 or 45 rpm) either way (slower or faster). Should you require any adjustment this is a service procedure that needs to be completed by Roksan. Likewise the voltage can be adjusted. Again this should be only necessary if very rare circumstances when operating a non-Roksan product.

Please contact your dealer or distributor for this service.



CONNECTIONS, SETUP AND OPERATION FOR RPP

Please refer to page 8 for instructions on how to connect and set up your RPP reference phono preamplifier.

For correct cartridge loading, refer to the diagram on page 9.

SWITCHING ON

The mains power switch (No.1) is located on the underside of the unit to the left. When switched on, the indicator will light up. Your unit is now ready for operation.



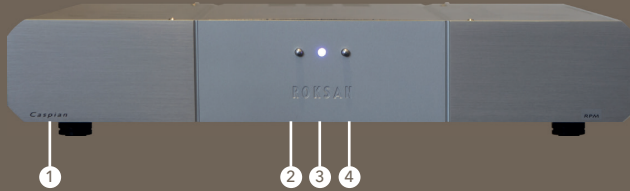
1. Mains power on / off switch
2. RPP on / off indicator



1. Tonearm 'ground' terminal
2. RPP right channel output
3. RPP right channel Input
4. RPP left channel Input
5. RPP left channel output
6. Voltage and fuse rating label
7. IEC mains cable socket
8. AC mains fuseholder



CONNECTIONS, SETUP AND OPERATION FOR RPM



1. Mains power on/off switch
2. Speed control button (33 rpm/45 rpm)
3. Speed control indicator
blue/indigo = on/off
blue/red = 33 rpm/45 rpm)
4. Speed control on/off button

Please refer to page 8 for instructions on how to connect and set up your RPM reference speed control.

SWITCHING ON

The mains power switch (No.1) is located on the underside of the unit to the left.

OPERATION

PLEASE REFER TO THE ABOVE FRONT PANEL IMAGE OF THE RPM

When the unit is initially switched on the indicator will light up **indigo** which will indicate the unit is switched on but that the speed control is off (turntable platter stationary).

To turn the speed control on, press the right button (no. 4). If the right button (no.4) is not pressed in then the speed will be set at 33rpm and the indicator will be blue.

To operate the speed change, press the left button (no.2) and the speed will change to 45 rpm and the indicator will turn to red.

Pressing the button again will change the speed back to 33rpm.

SPEED & VOLTAGE ADJUSTMENT

The VSC has is highly advanced speed control that regulates the current to an extremely high level of accuracy. The factory settings are the following:

50Hz @ 33rpm

67.5 Hz @ 45rpm



This drives the platter speed at a level of extremely high accuracy. However, in the very rare occurrence of needing to adjust the speed the ability to micro-adjust is available. This reaches from 0% to 6.25% of the relevant speed (33 or 45 rpm) either way (slower or faster). Should you require any adjustment this is a service procedure that needs to be completed by Roksan. Likewise the voltage can be adjusted. Again this should be only necessary if very rare circumstances when operating a non-Roksan product.

Please contact your dealer or distributor for this service.



- 5. 'Ground terminal'
- 6. RPM speed control output lead (to turntable)
- 7. Voltage and fuse rating label
- 8. IEC mains cable socket
- 9. AC mains fuseholder



GUARANTEE

There are no user serviceable parts inside your Roksan analogue product. In the unlikely case of a fault developing, refer all servicing to your appointed Roksan dealer, distributor or Roksan approved service agent.

Your Roksan Caspian VCS is guaranteed against any defects in materials and workmanship for a period of five years from the date of purchase.

This guarantee only becomes effective once your product has been registered within 14 days of the purchase. Roksan reserves the right to ask for a copy of your purchase invoice.

This guarantee excludes:

- Damage caused due to an accident, misuse, neglect and incorrect installation, adjustment or repair.
- Liability for damage or loss during transit from the retailer or purchaser to Roksan or its authorized distributor for the purposes of repair or inspection.

Carriage costs to Roksan shall be born by the consigner.

All claims under this warranty must be made through an authorized Roksan retailer. If equipment returned for repair to Roksan is found on inspection to comply with the product specification Roxanne reserves the right to make a charge for examination and return carriage. Unauthorized servicing will void this guarantee.

WARRANTY WILL ONLY BE VALID WHEN THE PRODUCT IS BOUGHT THROUGH THE AUTHORIZED RETAILER.

Warranty registration can be done online at www.roksan.co.uk/rw.php



SPECIFICATIONS

RPM REFERENCE SPEED CONTROL

Output voltage (33rpm)	16 Vrms
Output voltage (45 rpm)	16 Vrms
Phase	0 and 90 deg
DC offset	< 10 mV
THD + N	< 0.1%
Output impedance	< 0.1 Ω
Voltage supply	Requires +26, 0, -26 Vdc (internal DS1.5 power supply)

RPP REFERENCE PHONO PREAMPLIFIER

Gain settings	MM	40.6 dB @ 1 kHz
	MC1	56 dB @ 1 kHz
	MC2	65.5 dB @ 1 kHz
Signal-to-noise ratio	MM	> 89 dB AWTD (ref. 5.0 mV)
	MC1	> 79 dB AWTD (ref. 5.0 mV)
	MC2	> 70 dB AWTD (ref. 5.0 mV)
Overload margin	26 dB	
THD + N	< 0.01%	
Output impedance	< 50 Ohm	
Voltage supply	Requires +26, 0, -26 Vdc (internal DS1.5 power supply)	

DS1.5 POWER SUPPLY

Output voltage	+26, 0, -26 Vdc
Noise	< 10 microvolts (ref. 1 Hz to 3 MHz)
Output impedance	< 0.01 Ohm (ref. 20 Hz to 20 kHz)

Maximum power consumption 50W

Dimensions 432 x 80 x 330mm (incl. feet)

Weight 12kg