

ROKSAN

Caspian

System DX2

M SERIES - 1

USER MANUAL

ROKSAN AUDIO LIMITED

Jubilee Close, Townsend Lane, London,

NW9 8TR

TEL. **+44 (0)208 900 6801**
FAX. **+44 (0)208 205 2644**

www.roksan.co.uk
email: info@roksan.co.uk

Congratulations on your purchase of the ROKSAN Caspian DX2. Your System DX2 is designed and manufactured to the highest specification and rigorously tested to offer you many years of trouble-free pleasure.

The Caspian DX2 is at the heart of your Analogue system. Its correct installation, set-up and operation will have a profound influence on the performance of the entire audio installation.

This manual is divided into the following sections:

- Safety Instructions (*Accompanying card*)
- Introduction
- Cautions
- Installation
- Options
- Setup
- Operation
- Artaxerxes.X Setup
- Guarantee
- Specifications
- Notes

UNPACKING

Included in the packing of your Caspian DX2 you will find:

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

After removing these items please retain **all** packing materials. Correct packing is necessary for transportation of your Caspian DX2.

MAINTENANCE

After disconnecting the DX2 from the mains supply, the cabinet and front panel may be cleaned with a lightly dampened soft cloth or chamois leather. **Avoid using abrasives or solvents.**

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.

AC MAINS SUPPLY

Your Caspian DX2 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 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 DX2, please contact the appointed ROKSAN distributor for assistance.

Please observe correct mains polarity at all times.

The DX2 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 fuse rating label on the rear panel 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 DX2 must be connected to a suitable earthing 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 DX2 and receiver
- Connect the unit to a different mains circuit from that of the receiver
- Consult your ROKSAN appointed dealer or an experienced Radio/TV technician for help and advice

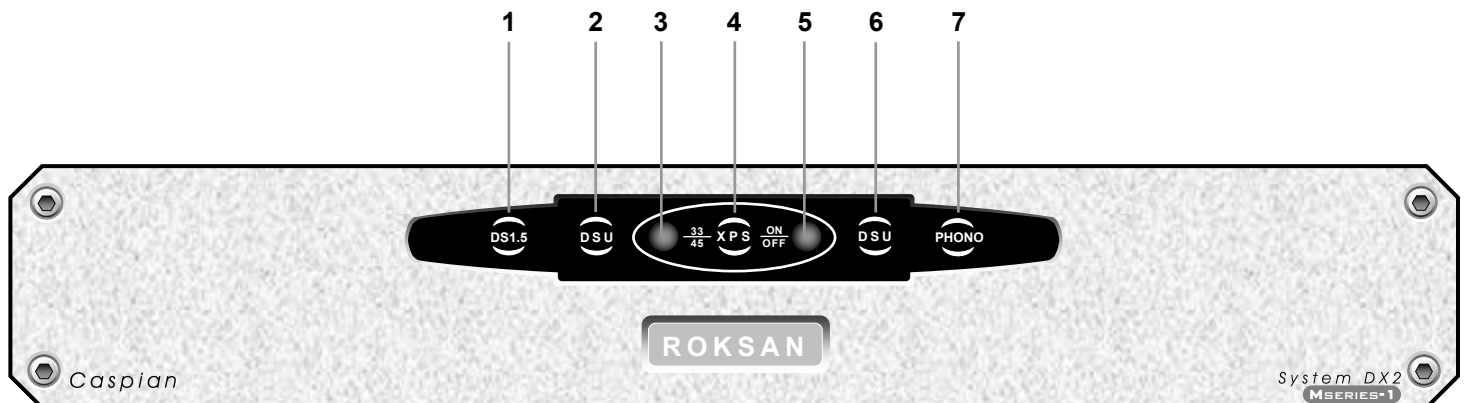
LOCATION

Your Caspian DX2 should be located in a well ventilated area and kept away from sources of heat, dust and humidity and direct sunlight.

The DX2 may be positioned either as a free standing unit or alongside another audio/video product.

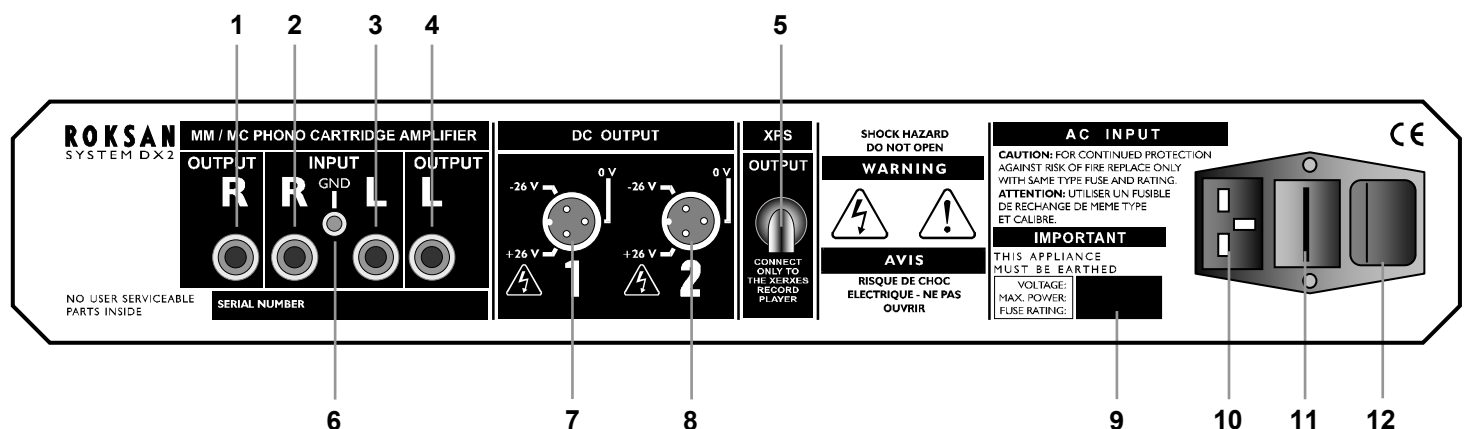
Never place the DX2 on carpet or any surface likely to hinder normal ventilation. This unit contains no user serviceable parts. **Do Not remove any panels or attempt to service it yourself.** Unauthorised servicing will void the warranty.

ROKSAN Caspian System DX2- Front Panel View



1. DS1.5 Reference DC Power Supply Indicator
2. DSU DC Power Supply Indicator
3. XPS Motor Drive 33 / 45 RPM Button
4. XPS Motor Drive Status Indicator
5. XPS Motor Drive ON / OFF Button
6. DSU DC Power Supply Indicator
7. Artaxerxes.X MM / MC Phono Amplifier Indicator

ROKSAN Caspian System DX2 - Rear Panel View



1. Phono Amplifier Right Channel Output
2. Phono Amplifier Right Channel Input
3. Phono Amplifier Left Channel Input
4. Phono Amplifier Left Channel Output
5. XPS Motor Drive Output Lead
6. Phono Amplifier Grounding Post
7. DC Power Output Socket
8. DC Power Output Socket
9. Voltage & Fuse Rating Label
10. IEC Mains Inlet Socket
11. AC Mains Fuseholder
12. AC Mains Power Switch

There are eight options available on the DX2. The DX2 can be configured as being only a DC power supply of ± 26 Vdc, to power Roksan DC powered products, to a fully loaded XPS.V /DSU plus Artaxerxes.X /DS1.5 (i.e. Xerxes motor drive and MM/MC Phono amp). Please view the chart below:

System DX2 Configurations

Please note the following:

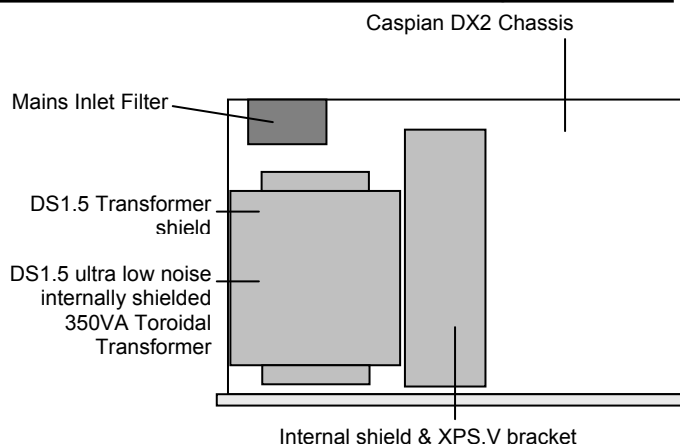
DSU		± 26 Vdc DC Power Supply Module
DS1.5	<i>Reference</i>	± 26 Vdc DC Power Supply Module
XPS.V	<i>Reference</i>	Xerxes Motor Drive
Artaxerxes.X	<i>Reference</i>	MM / MC Phono Amplifier

Basic DX2:

DX2 System Platform

All System DX2 combinations share the state of the art AC Mains filter and the massive 350VA ultra low noise internally and externally shielded DS1.5 toroidal transformer housed in the stylish Caspian DX2 chassis.

NOTE: The basic DX2 on its own can not operate any product. It is merely a platform to build on with the following options.

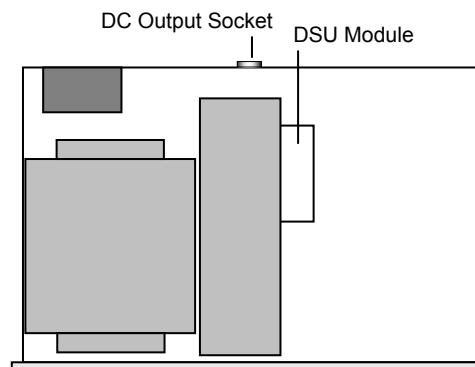


Basic DX2 + DSU:

Single DC Supply

With one DSU Module.

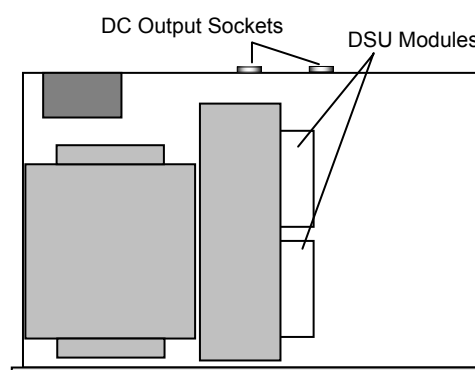
- x1 DC output socket (± 26 Vdc)
To power any DC operated Roksan product
- e.g. XPS 3.5, XPS.V, DA2 etc.



Basic DX2 + DSU + DSU:

Dual DC Supply

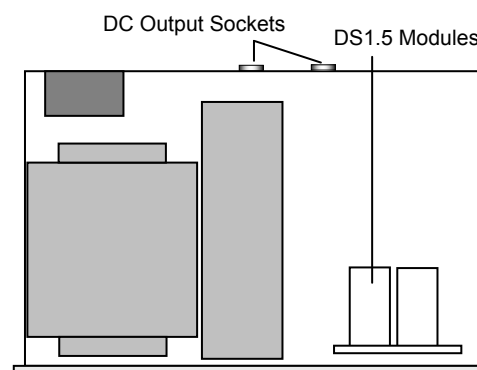
With two DSU Modules (This offers two DC output sockets and can power two DC operated Roksan products).



Basic DX2 + DS1.5:

Dual DC Supply

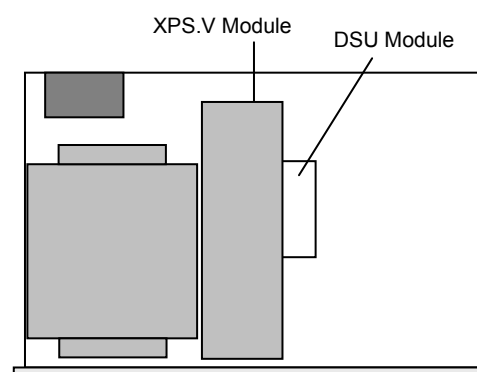
With one DS1.5 Module (**Reference** DC Power Supply Module with two DC Output Sockets ± 26 Vdc).



Basic DX2 + DSU + XPS.V:

Xrexes Motor Drive

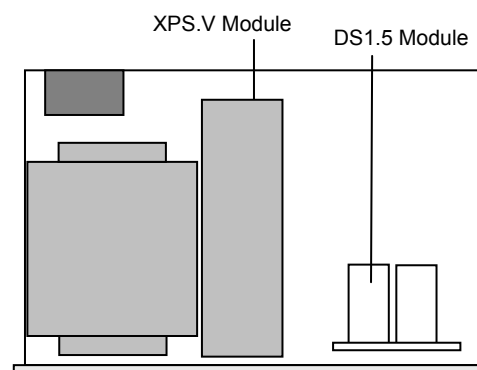
With one DSU Module and one XPS.V Module (**Reference** Xrexes Motor Drive. **Note:** 5-pin Output lead connector for Xrexes.X & 4-pin Output lead connector for the original Xrexes).



Basic DX2 + DS1.5 + XPS.V:

Reference Xrexes Motor Drive

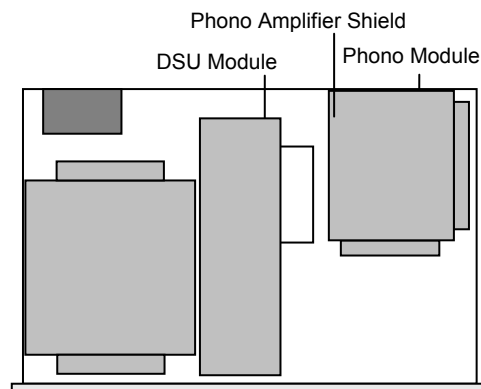
With one DS1.5 Module (**Reference** DC Power Supply Module) and one XPS.V (**Reference** Xrexes Motor Drive. **Note:** 5-pin Output lead connector for Xrexes.X & 4-pin Output lead connector for the original Xrexes).



Basic DX2 + DSU + ArtaXerxes:

Phono Stage

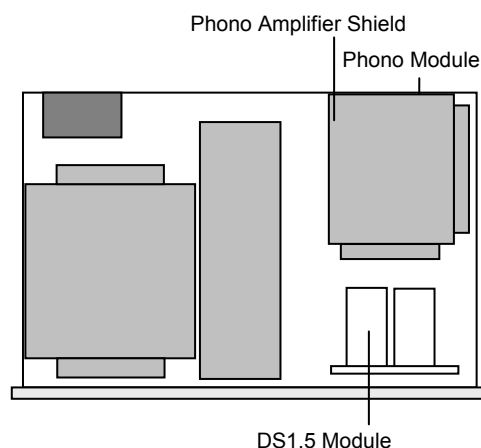
With one DSU Module and one ArtaXerxes.X Module (**Reference** MM/MC Phono Amplifier).



Basic DX2 + DS1.5 + ArtaXerxes:

Reference Phono Stage

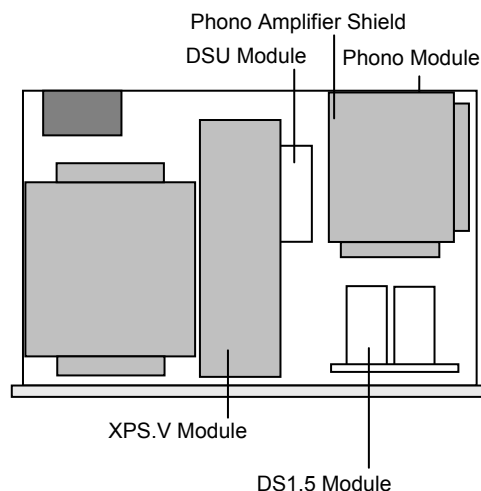
With one DS1.5 Module (**Reference** DC Power Supply) and one ArtaXerxes.X Module (**Reference** MM/MC Phono Amplifier).



Basic DX2 +DSU + XPS.V + DS1.5 + ArtaXerxes:

Refernce Phono Stage & Xerxes Motor Drive

With one DSU powering the XPS.V and one DS1.5 powering the ArtaXerxes.X.



CONNECTING MAINS POWER

Please refer to the rear panel view on page 4. The moulded IEC connector of the supplied mains lead should be plugged into the socket (12) on the rear of the unit first and then plugged into the mains supply. The Mains power switch (10) is on the rear panel of the DX2. This switch 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)

System DX2 must be fitted with at least one DC Power Supply.

INPUT / OUTPUT CONNECTIONS

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

DC POWER LEAD:

When the DX2 is used as a dedicated DC power supply, first attach the DC1 lead to one of the DX2 DC Power Output Sockets (7 or 8) and then to the DC Power Input Socket of the partnering Roksan product. **Note:** DC1 Lead is directional.

XPS.V OUTPUT LEAD:

There are two versions of output lead connector. You should use the 4-pin connector version for the original Xerxes and the 5-pin connector version for the Xerxes.X.

Simply line up the connector 'key', insert fully and secure by tightening the locking nut finger tight.

ARTAXERXES.X:

Connect the tone arm cable L & R RCA plugs to the L & R input (2 & 3) and securely attach the 'Ground' lead to the 'Ground' terminal (6) of the Phono amplifier. Then connect the L & R output (1 & 4) sockets of the Phono amplifier to the L & R (Line level) input 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 terminated with Roksan RCA plugs.

Remember for best results, always use the DS1.5 DC power module to power the XPS.V or the Artaxerxes.X.

Please refer to the front and rear panel views on page 4.

SWITCHING ON

The Mains power switch (**10**) is located on the rear panel of the DX2. This switch should be left ON for normal operation. If unattended for a long period, the Mains power should be switched OFF and the lead disconnected from the mains supply.

When switched ON from the rear panel, your Caspian DX2 Display will illuminate the indicators of all fitted modules. (For example **DS1.5** & **PHONO**)

USING THE CONTROLS

Please refer to the front panel view on page 4.

XPS.V XERXES MOTOR DRIVE

DX2 systems fitted with the XPS.V will have two push buttons (**3** & **5**), one selects between 33 & 45 rpm, the other switches the output of the XPS.V ON or OFF. When the XPS.V is selected to be OFF the indicator will glow ORANGE and when it is ON, the indicator will glow GREEN for 33 rpm and RED for 45 rpm.

Note: Only the XPS.V module has front panel control buttons.

ARTAXERXES.X MM/MC PHONO AMPLIFIER

To optimise the performance of your phono cartridge, there are three gain, four input impedance and one input capacitance selection on the Artaxerxes.X. **The settings are clearly marked on the under side of your DX2. Set the corresponding Gain and input Load using the two DIP switches.**

IMPORTANT NOTE: The array of 8 switches on each Dip switch set the desired selection for one channel only. Both Dip switches must be set identical for correct stereo output.

ARTAXERXES.X SETUP

Caspian System DX2

See Bottom Panel of DX2 Chassis for setup instructions on cartridge loading and gain:



SHIRAZ MC:

Switches, **4(D)** and **7(G)** Should Be **ON**

CORUS MM:

Switches, **1(A)** and **6(F)** Should Be **ON**

Other Moving Coils:

Switches, **4(D)** and **8(H)** Should Be **ON**

SW 1(A): 5mV Setting Compensation Capacitor

SW 2(B): 100pF Loading Capacitor (Optional)

SW 3(C): 10R Loading Resistor (Optional)

SW 4(D): 100R Loading Resistor (Most MCs)

SW 5(E): 1K Loading Resistor (Some MCs)

SW 6(F): 5mV Gain Setting (For MM with **SW 1(A)**)

SW 7(G): 1mV Gain Setting (Shiraz)

SW 8(H): 0.5mV Gain (Most Other MCs)

If no input load is selected the default is 47K and 47pF.

Note: Both DIP Switches must be set identical.

There are no user-serviceable parts inside your Caspian System DX2. If a fault should develop, refer all servicing to your appointed ROKSAN dealer, distributor or ROKSAN approved service agent.

Your ROKSAN Caspian DX2 is guaranteed against any defect in materials and workmanship for a period of **two years** from the date of purchase.

This guarantee only becomes effective if the warranty card is validated by the ROKSAN retailer from whom the equipment was purchased and returned to ROKSAN within **28 days** of purchase.

This guarantee excludes:

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

Carriage costs to ROKSAN shall be borne by the consignor.

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

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

Unauthorised servicing will void this guarantee.

SPECIFICATIONS

Caspian System DX2

DSU

DC Power Module

Output Voltage	+26, 0, -26 Vdc
Noise	<150 microvolts (ref. 1Hz – 3 MHz)

DS1.5

Reference DC Power Module

Output Voltage	+26, 0, -26 Vdc
Noise	<10 microvolts (ref. 1 Hz – 3 MHz)
Output Impedance	<0.01 Ohm (ref. 20 Hz – 20 kHz)

XPS.V

Reference Xerxes Motor Drive Module

Output Voltage	16.3 Vac \pm 0.2 Vac rms (33 rpm)
Output Voltage	16.0 Vac \pm 0.2 Vac rms (45 rpm)
Phase	90 degrees \pm 2 degrees
DC Offset	<20 mV
THD+N	< 0.05%
Output Impedance	< 0.1 Ohm
Voltage Supply	<u>Requires:</u> +26, 0, -26 Vdc (Internal DSU or DS1.5)

ARTAXERXES.X**Reference Phono Amplifier Module**

Gain Settings	MM 40dB @ 1kHz MC1 54dB @ 1kHz MC2 60dB @ 1kHz
S/N Ratio	MM > 88dB AWTD (ref. 5.0 mV) MC1 > 84dB AWTD (ref. 1.0 mV) MC2 > 80dB AWTD (ref. 0.25 mV)
Overload Margin	26dB all settings
THD+N	< 0.01%
Output Impedance	< 50 Ohm
Voltage Supply	<u>Requires:</u> +26, 0, -26 Vdc (Internal DSU or DS1.5)

DX2**System DX2 Chassis**

Mains Input	Filtered, double fused, switched IEC
Transformer	Ultra low noise internally and externally shielded 350 VA Toroidal
Power Source	100V – 120V 50Hz / 60Hz 220V – 240V 50Hz / 60Hz
Power Consumption	240 W max.
Dimension	432 x 330 x 70 (W x D x H) mm 432 x 330 x 80 (including feet)
Weight	12Kg max. <u>Fully loaded</u>

NOTES**Caspian System DX2****Caspian System DX2 M series-1**

Serial Number:

Purchase Date

Year Month Day

Modules fitted

DSU ... <input type="checkbox"/>	Date
DSU ... <input type="checkbox"/>	Date
DS1.5 ... <input type="checkbox"/>	Date
XPS.V ... <input type="checkbox"/>	Date
PHONO ... <input type="checkbox"/>	Date

ROKSAN RetailerName:
Location:*Please keep a record for future reference*