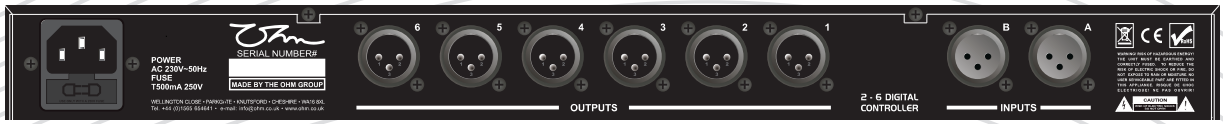
OYSTER 2-6 LOUDSPEAKER MANAGEMENT SYSTEM





USER MANUAL

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OYSTER LOUDSPEAKER MANAGEMENT SYSTEM

The information contained within this manual does not include all of the details of design, production or variations of the equipment. Nor does it cover every possible situation that may arise during installation, operation or maintenance. If you need particular assistance beyond the scope of this manual please contact our technical staff.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

WARNING! RISK OF HAZARDOUS ENERGY!

TO REDUCE RISK OF ELECTRIC SHOCK OR FIRE DO NOT EXPOSE TO RAIN OR MOISTURE.

NO USER SERVICEABLE PARTS INSIDE.REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

UNIT MUST BE EARTHED AND CORRECTLY FUSED.

Magnetic Field - Caution

If an equipment rack is to be used, we would recommend mounting the amplifiers in the bottom of the rack and mounting pre-amplifier and other sensitive equipment such as the Oyster at the top of the rack.

Do not locate sensitive high-gain equipment such as pre-amplifier or tape decks directly above or below amplifiers.

Because amplifiers have a high power density there is a strong magnetic field which can induce hum into unshielded devices that are located nearby. The field is strongest just above and below the unit.



The lightning bolt triangle is used to alert the user to the presence of uninsulated "dangerous voltage" within the unit that may constitute a risk of electric shock.



The exclamation mark triangle is used to alert the user to important operating or maintenance instructions in the literature accompanying the product.

CE Conformity

This equipment has been tested and found to conform to the requirements of the EMC Directive 89/336/EEC, the requirements of the Low Voltage Directive 73/23/EEC, amended by 93/68/EEC and to the following standards:

EMC Emission	EN55103-1 (1996)
EMC Immunity	EN55103-2 (1996)
Electrical Safety	EN60065 (1998)

CE

Features

- Intended mainly for fixed installation use
- No front panel access making the unit tamper proof
- Uses the OHM SPYDER digital signal processing platform
- The front panel has a USB port for easy access when the unit is rack mounted
- 2 in 6 out configuration using XLR connectors
- Power, Signal and Peak indicators on the front panel

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Introduction

Thank you for purchasing an **OHM OYSTER Loudspeaker Management System.**

Please read this manual and familiarise yourself with the operation of your OHM OYSTER Loudspeaker Management System before you attempt to power up this unit. For your own safety we recommend you take the time to read all the warnings and precautions on page two and study the connection details to ensure correct usage and avoid any misuse which may invalidate your warranty.

Record the model and serial number, found on the back of the unit, in the spaces designated on the warranty card and in the space provided below. Refer to the model and serial number whenever you call upon your dealer for information or service on this product.

Model	**Serial Number**

The **OHM OYSTER Loudspeaker Management System** represents the current state-of-the-art. Taking advantages of the latest advances in analogue to digital conversion and digital signal processing technologies the units achieve performance levels that have only recently been made possible.

This modern design is combined with OHM Factory Presets to deliver the optimal match for OHM cabinets and systems. These presets allow the user to simply achieve the best possible sound quality.

Unpacking

Carefully open the shipping carton and check for any noticeable damage. Verify that all the items listed below are included, please contact your dealer if any parts are missing.

Every **OHM OYSTER Loudspeaker Management System** has been rigorously tested and inspected before being carefully packaged, prior to shipping. If any damage has occurred to the packaging or the unit during transit, please notify the delivery company as soon as possible. Only the consignee can file a claim against the carrier for shipping damage. Be sure to save the carton and all packing materials for the carriers inspection.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in future.

Packing List

1x OYSTER 2-6 Loudspeaker Management System
1x Power Cable
1x USB Cable
1x Manual and Warranty card.

Precautions

- Retain this manual for future reference.
- Do not stand the unit vertically on it's rear.
- Always check the correctly rated power is supplied with your unit.
- Avoid direct contact of your **OYSTER** with water or other liquids.
- When cleaning the unit, wipe with a soft, dry cloth. if more heavy duty cleaning is required, disconnect from the mains and use a damp cloth ensuring the unit is completely dry before reconnecting to the mains.
- Do not use solvents or chemicals on the exterior of the unit as the may cause the surface to discolour or peel.
- Do not use if the power cord is frayed or broken.
- If you experience continuous problems, disconnect from the mains and refer to a qualified service engineer.
- This unit is only intended for qualified personnel to operate and install. Do not attempt to repair or service yourself. Please refer to qualified technical service department. The user must have sufficient electrical contact to earth. Electrostatic charges may effect the operation of the **OYSTER**.

Installation

Once your OYSTER has been unpacked you are now ready to install it.

The Oyster is a 1U 19" unit and will fit into any standard 19" rack unit or 19" flying case. Place the OYSTER into desired position and fix into place using the correct fixing elements for your case/unit.

When you are happy with the positioning of your OYSTER connect the signal source for example DJ mixer or zoning mixer to the inputs on the OYSTER, then connect amplifier/s to the outputs on the OYSTER. The OYSTER will allow 2 inputs and 6 outputs on a single unit.

Before You Start.

You must install the Spyder software.

Visit ***www.ohm.co.uk/downloads*** and download the latest SPYDER SOFTWARE and SPYDER SOFTWARE PDF Manual.

Software Installation.

1. Once you have downloaded the software from the OHM website, unzip the file and start the installation process by double clicking the OHM SPYDER SETUP.MSI file.
2. A welcome to OHM SPYDER control software set up wizard will pop up. Click "NEXT" to install the software. However if you do not wish to install the software at this time please click "CANCEL". The software will not be installed and you will not be able to program your OHM controllers using a PC.
3. The next screen is the License Agreement, read the agreement carefully and once you are happy with the terms set out tick the box and click "NEXT" to proceed. If you do not accept the license agreement the software will cancel and will not be installed.
4. At the install program screen, click "NEXT" to install the OHM SPYDER control software to the default folder. If you require the software to be installed to another folder click "CHANGE" and "BROWSE" to the new folder location. Once the new location is selected click "NEXT".
5. The OHM SPYDER control software is now ready to install, if you need to make changes to any of the previous screens click "BACK" otherwise click "INSTALL" to continue.
6. Your software is now installed. You may be required to install Microsoft VC++ Runtime Libraries for this software to run, if you require this click the "INSTALL" box if not then click "FINISH". NB: if you are unsure if you need to install Microsoft VC++ Runtime Libraries click the box anyway and it will either install or the option to repair or uninstall comes up, at this point you can click cancel to leave the install or continue.

Once the Software is installed, connect your OYSTER unit to your PC using the USB cable provided and power it up. If this is the first time an Oyster Unit has been connected to this PC the drivers will install.

If the drivers fail to install you will need to manually install them, to do this please follow the instructions below.

Goto the control panel/system/hardware/device manager.

click the + next to Ports (COMS & LPT) to expand the list this will have a yellow triangle next to it showing there is a problem.

double click alldsp usb bridge go to driver/update driver.

Check install from list and click next.

Browse for the drivers these are located in *"program files/ohm/spyder/drivers"* for 32 bit OS, alternatively if you have windows 7, 64 bit OS drivers will be in *"program files (x86)/ohm/spyder/drivers"*.

Note for Windows 7 and Vista you may need administrator privileges.

If there are any issues with the driver or software installs please contact OHM.

Start the software and ensure that there is a link achieved this will show as a green light in the Link Status section on the main page of the software.

Please refer to your software guide for further instructions.

Quick Reference

Front Panel



1 Input Peak Indicator

Red LED indicating that the input on the channel has reached it's peak value. This light can be on momentarily but continuous illumination indicates that input signal should be reduced.

2 Input Signal Indicator

Green LED Indicating that there is a signal present on the input.

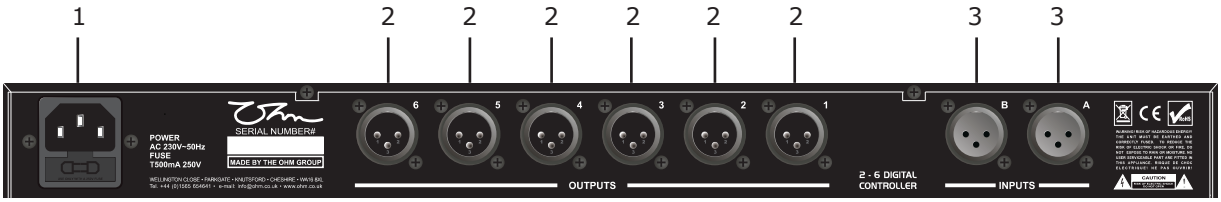
3 USB Connector

The USB connector on the front panel allows connection to a PC. Once connected the OHM proprietary software will allow control of the unit. Mac software is under development.

4 Power Indicator

Blue LED indicating that there is power connected to the unit.

Rear Panel



1 Power Inlet

The **OHM OYSTER** unit should be connected to a suitable mains electricity supply using the cable supplied. The processor has a switch mode power supply that is capable of operating with a nominal mains voltage of 180V to 260V 50~60Hz

2 Audio Output Connectors

The processed outputs are impedance balanced, and wired pin-1 ground, pin-2 hot and pin-3 cold. An unbalanced input may be driven by connecting pin-3 'cold' unconnected.

3 Audio Input Connectors

All audio connections are fully balanced and wired pin-1 ground, pin-2 hot & pin-3 cold. The two inputs have pin-1 connected directly to the chassis and feed the signal processing chains. If an unbalanced source is used, a connection should be made between the pin-3 'cold' signal and the ground connection of the unbalanced source.

SPECIFICATIONS

Input Section

Input Impedance	10 kΩ
Nominal Input Level	+6 dBu
Maximum Input Level	+22 dBu
Input Gain	-48 to +12 variable in 0.25db steps
CMRR	Better than 50dB (30Hz-20kHz)
Input connector	2 x female 3 pin XLR, balance

Output Section

Output Impedance	50 Ω (electronically balanced)
Maximum Output Level	+12 dBu
Output Gain	-50 to +12 dB
Output Connector	6 x Male 3 pin XLR, balanced

General Performance

Frequency Response	20 Hz to 20 kHz
Sampling frequency	48 kHz
Dynamic range	114 dBA (D/A converter), 110 dBA (A/D converter)
Channel Separation	>75dB, 30Hz to 20kHz
Distortion (THD)	Distortion: 0.01 %
Input Metering (+20dBu)	Signal = -48dB, Peak = +3dB relative to the nominal input level of +6dBu

General Information

Serial Connector	USB Port type B
Dimensions (w x h x d)	482mm x 44mm x 128mm
Weight	3 kgs unpacked
Mains Power	180 - 260 V AC, 50-60Hz ~
Mains	3 pin IEC Mains Socket
Consumption	<10watts
Fuse	T500mAL250V

Input / Output Functions

Cross Over Filters

Slopes	6, 12, 18 or 24 dB/octave
Type	Bessel, Butterworth or Linkwitz-Riley

Delays

Delay	0 to 2 Secs
Delay Step	15µs
Max Delay Time	2 Secs inputs and outputs.
Limiter	Zero-attack peak limiter with threshold adjustable in 0.25dB steps

EQ

EQ Type	Parametric.
EQ Frequency	20Hz to 20kHz variable in 1Hz steps
EQ Gain	-12 to +12 dB variable in 0.25 dB steps
EQ Width	0.06 to 4.75 Oc
PEQs per output:	10



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Dealer Stamp

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