OHM SPYDER
CONTROL SOFTWARE

USER MANUAL

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OHM SPYDER Control Software USER MANUAL

Contents

Installation

Before You Start.

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.

The OHM SPYDER control software is a universal platform which will allow all OHM DSP products to be controlled via a PC.

Now connect your unit to the power and power it up.

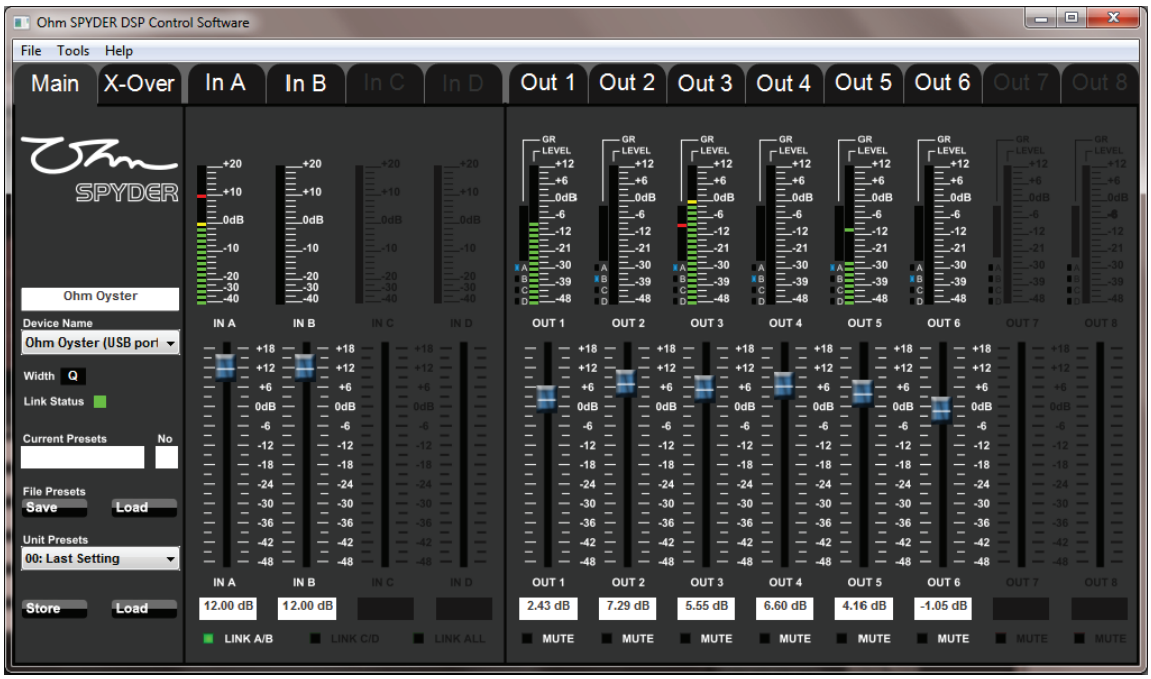
The first time a unit is connected to a PC it will install the required drivers, The drivers are located in the "*program files/ohm/spyder/drivers"* for 32 bit OS, alternatively if you have windows 7, 64 bit OS drivers will be in "*program files (x86)/ohm/spyder/drivers"*. If there are any issues with the driver or software installs please contact OHM.

Before starting the software please update the firmware, this can be found in the start menu/SPYDER/ firmware upload. The upload program will search for the com link when this has been found a message saying United Detected. Press Start to upgrade the firmware (version Number) should the process fail at any point for any reason, please repeat it. Click start. The unit will then proceed to update, do not disconnect or power down the unit during this process.

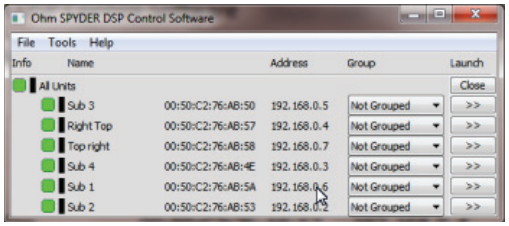
Start the software and ensure that there is a link achieved this will show as a green light in the Link Status section on the main page of the software.

The software is able to tell which unit is connected to it via USB or Network for example OYSTER 2-6 or CRED 4-8 and will disable the parts of the software that are not relevant to the unit connected. For example an OYSTER Unit is 2 in and 6 out so it only requires the same from the software to work so IN C and D and OUT 7 and 8 will be disabled and greyed out.

For this manual, except where relevant, all pictorial information will show the software as if a 2-6 unit is connected. See example of disabled (greyed out on) page 5.



Unit Grouping Management



When the program starts the network screen is the first available, here you can manage all units and grouping functions. By clicking the double arrow you open the main console for the SPYDER Software.

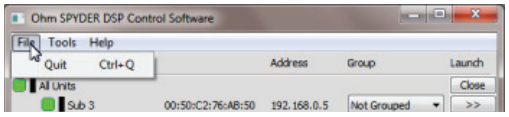
Info - Status light will be green if unit is connected, yellow if there is no signal between unit and software.

Unit Name - Shows the name of the unit connected, this is set on the Main Page of the software.

Address - Shows the MAC and IP address of the unit.

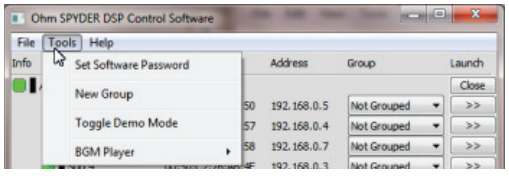
Group - Shows the group that the unit is associated with. Group can be selected from the drop down menu.

Launch - Launches the software to allow control of the unit or group.



File Menu

Quit - Exit the application by either using the x on the right hand corner or going to file and choosing quit.



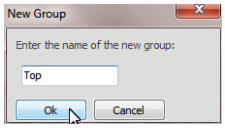
Tools Menu

Set Software Password - Here you can set a password to the SPYDER Software installed on your computer, this password is not related to the passwords you may have set for the units connected.

New Group - This function allows the user to create a group to control multiple DSP's units at the same time. All settings will be copied automatically to all units within the same group.

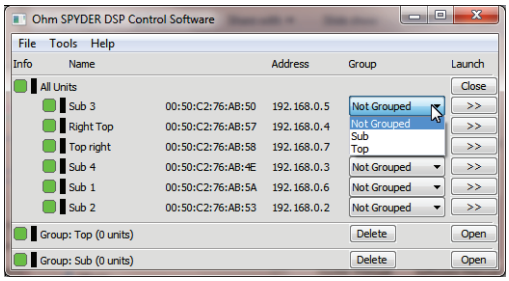
Toggle Demo Mode - This allows the user to try the SPYDER software without a unit attached, this also allows offline preset creation.

BGM Player - This is an MP3 player which can be used to play music through the unit without an external sound source.

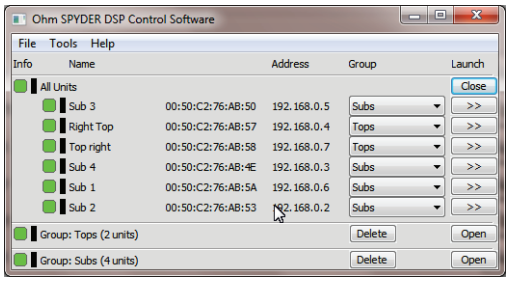


New Group

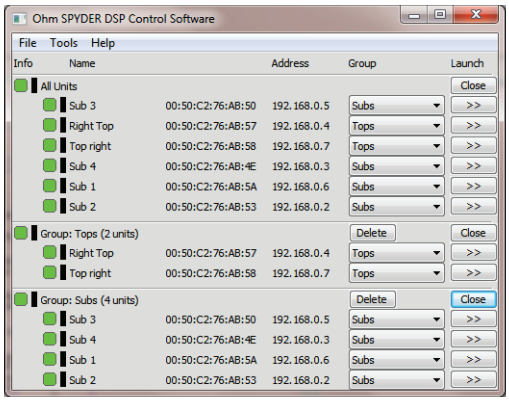
When you choose new group from the tools menu a pop up window appears in which you name the new group.



Once the group has been created it appears in the dropdown list, here you choose which unit to put into which group.

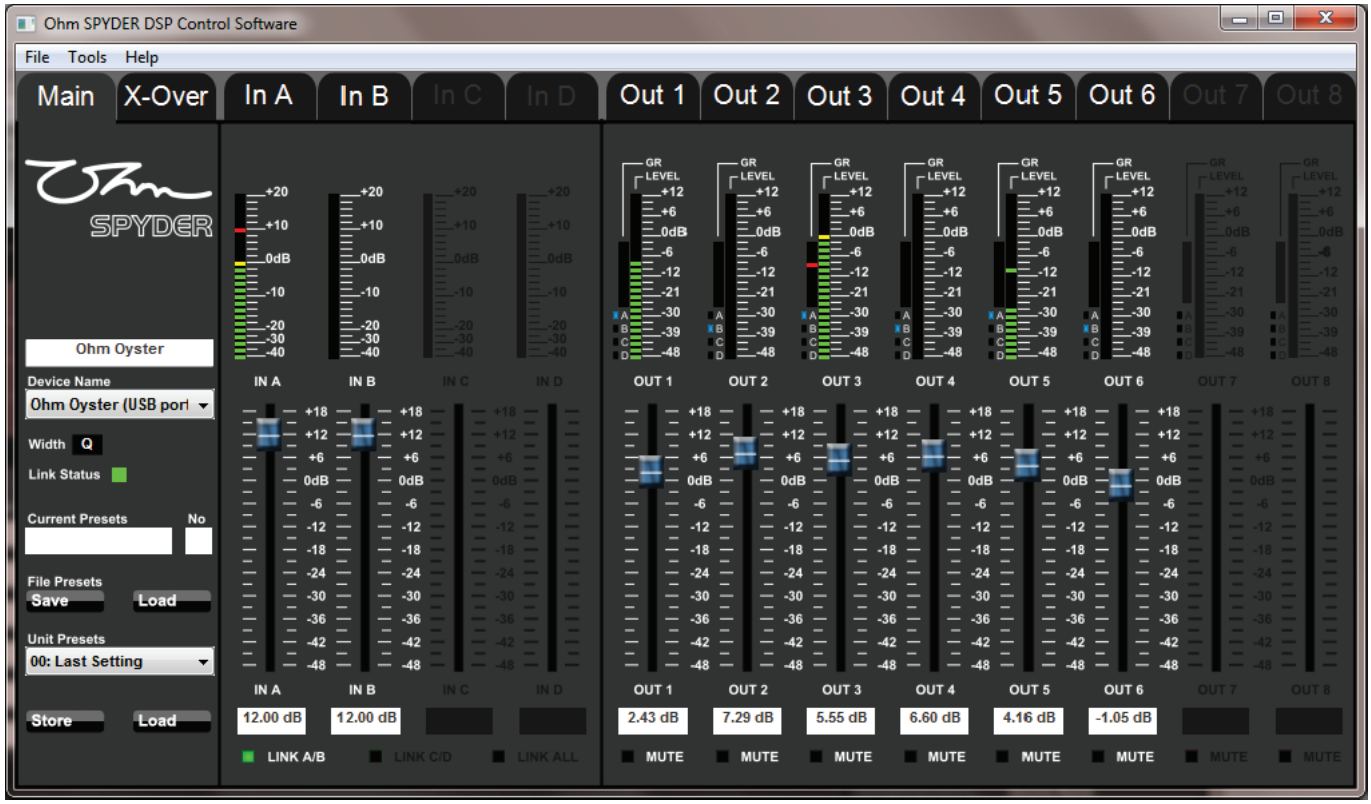


Now that the units are grouped you can access the software control by clicking the double arrow this will open up the main SPYDER Software and you can make all adjustments required for that group. This needs to be done for all groups individually and you will be able to have multiple sessions of the software open. Example you can have one version open to adjust the Tops group and one to adjust the Subs group.



When expanded this window shows all groups and which units are in each group. You can access the software from any double arrow which has the group name you want to work with.

MAIN PAGE

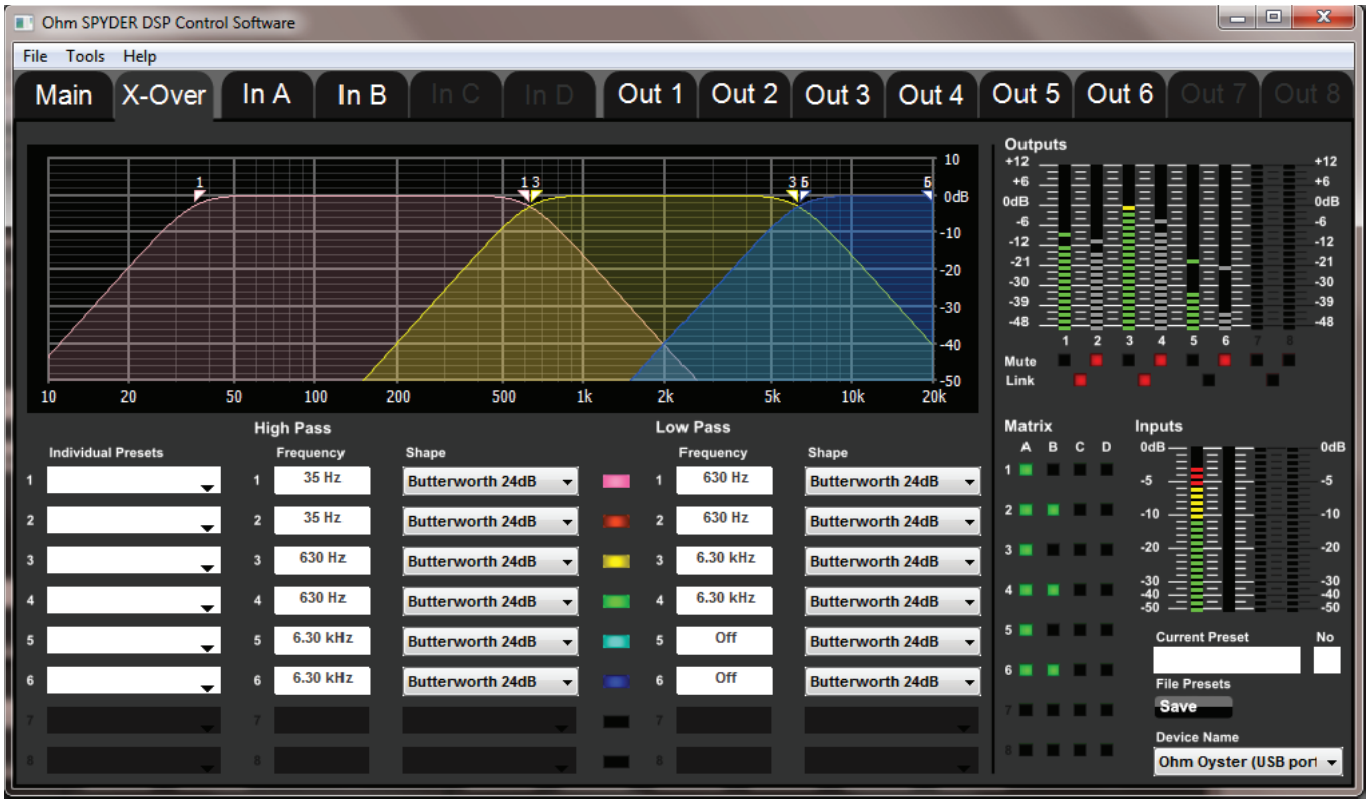


Preset and System Functions

Input Section Functions

Output Section Functions

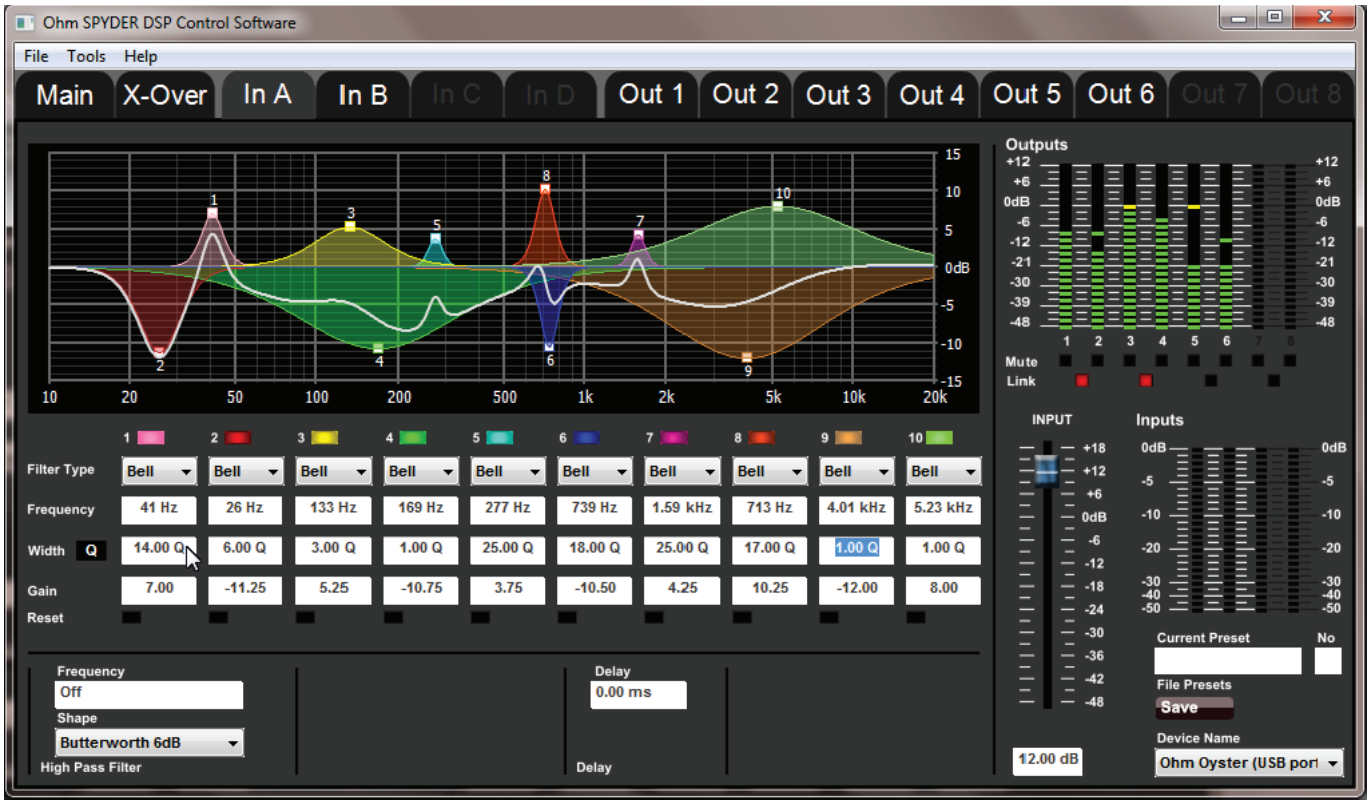
X-OVER PAGE



X-Over Functions and Graph

Matrix and Level Indicators

INPUT PAGE

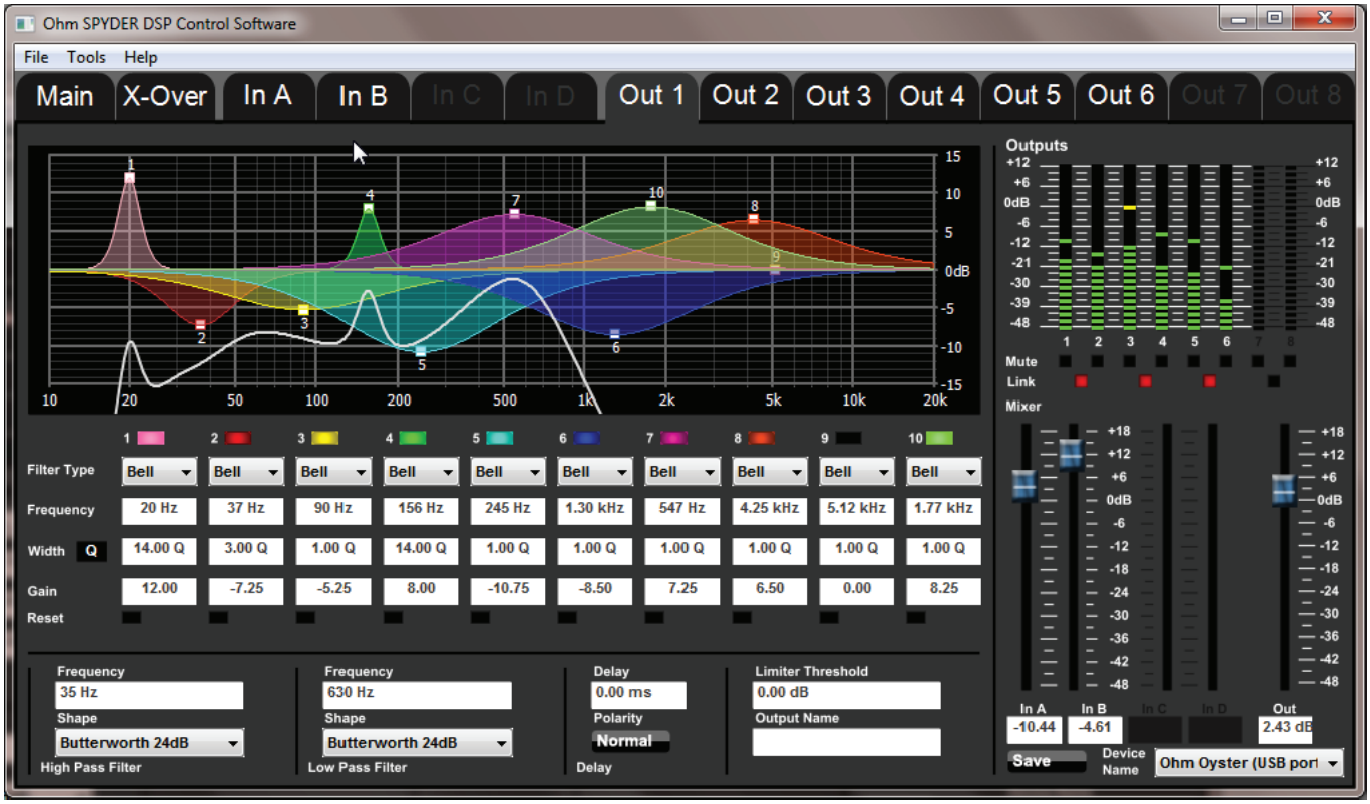


Input EQ and Graph

Input Passband Functions

Level Indicators

OUTPUT PAGE



Output EQ and Graph

Output Passband Functions

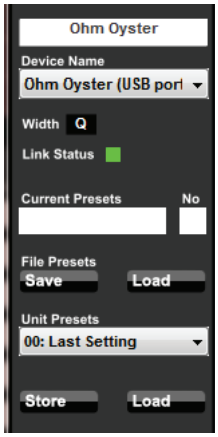
Output mixer Functions

HEADER BAR

The software is set up into four sections, Main, X-over, Input section and Output section, Input has up to 4 sub-sections and output has up to 8 sub-sections dependent upon which unit is connected. To access any section or sub-section click the relevant tab.

MAIN PAGE

Preset and System Functions



Unit Name

Allows the user to input a name for the device. Can also be used to rename device.

Device Name Drop-down Menu

The device connected will be displayed in this box. If more than one unit is connected via the network you can choose between units via the drop down box.

Width Button

Allows the user to choose between Octave (Oc) and Q values in the input and output sections.

Link Status Indicator

When a unit is connected the link status will light up green. If the link status is red then there is no connection between the unit and the PC. If this is the case restart the software or remove the cable between the unit and the pc and check connection again. If there is still no link between the unit and the software, check for software updates on the OHM website. After this if you still cannot get a connection please call your dealer for assistance.

Current Presets and No Display

This shows the Current preset that is loaded and the number assigned to it. When the unit is connected the active settings from the unit will automatically be loaded into the software. Any unsaved information on the software will be lost.

File Presets Save and Load Buttons

Save allows the settings that have been created to be saved to file on the PC. The file will be saved in the presets folder of the OHM SPYDER Control Software.

Load allows a saved preset to be loaded into the software. This function will overwrite all settings and any unsaved changes will be lost.

Unit Presets Drop-down Menu

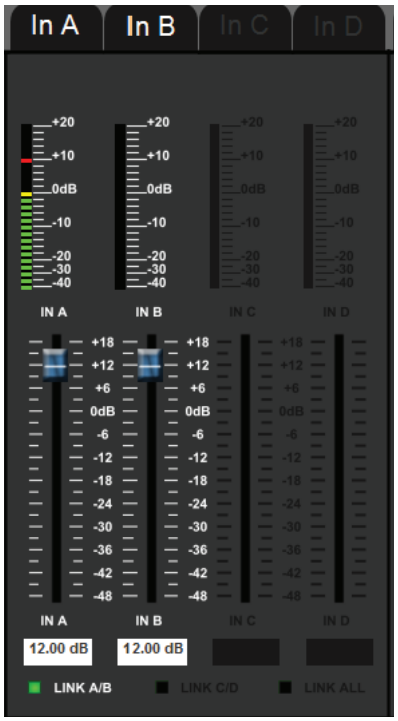
Select from this list the preset to be loaded from the unit or empty memory slot to be used for storing user created preset to the unit. Once the Preset or memory slot has been chosen press Store/Load.

Unit Store and Load button

The store button allows you to save the settings that you have just created to the unit. A pop up window will appear asking for a preset name.

The Load button loads a preset selected from the preset menu the unit to the software, Any unsaved information already in the software will be lost.

Input Section Functions



Input VU Meters

Indicates the signal level coming into the unit.

Gain Faders

Adjusts the input gain for the input signal from -48 dB to +18 dB in 0.25dB steps.

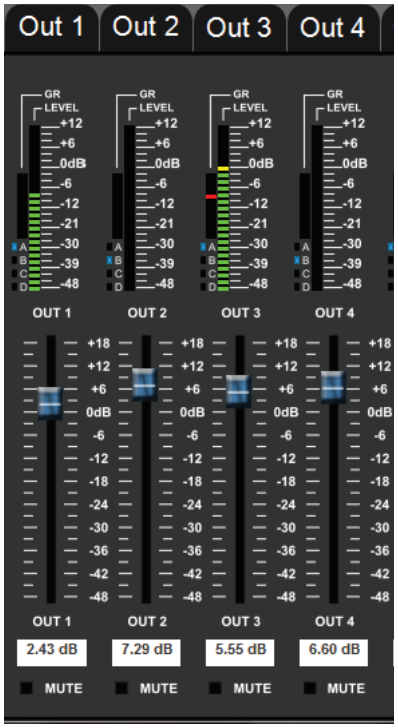
Gain Input value

Shows the value set by the input fader. Input gain value can also be typed directly into the box between -48 dB to +18 dB for quick and accurate input. Up and down arrow keys can also be used to adjust the value.

Link Buttons

Used to make mono inputs stereo, dependant on which unit is connected inputs A and B, C and D or all four can be linked.

Output Section Functions



Output VU Meters

Indicates the output signal level

Gain Reduction Meters

Indicates the gain reduction relative to

A: user defined threshold or

B: The unit running out of dynamic headroom.

Matrix Indicators

Indicates settings for the matrix section on the X-over page.

Output level faders

Adjusts the level for the output signal from -48 dB to +18 dB in 0.25 dB steps.

Output level value

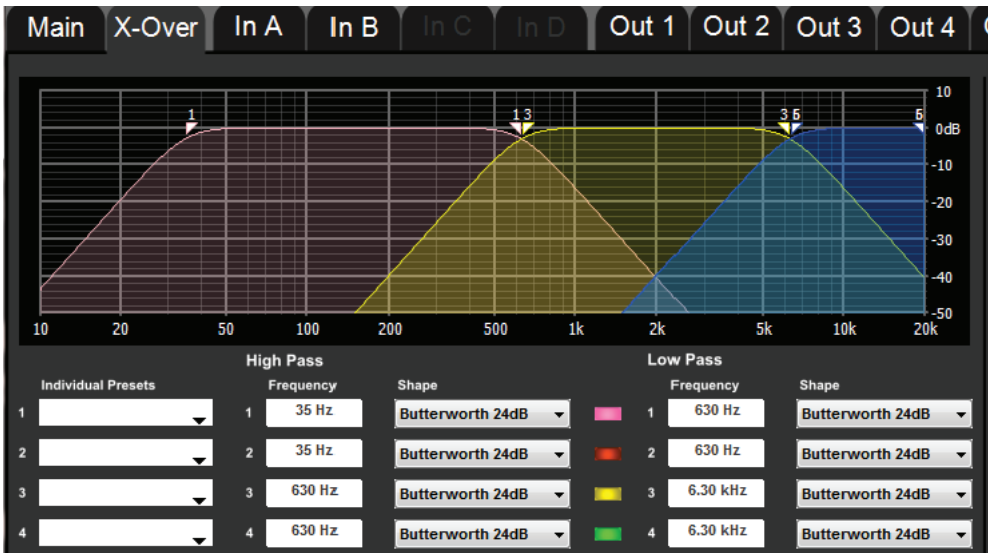
Shows the value set by the fader. Output level value can also be typed directly into the box between -48 dB to +18 dB for quick and accurate input. Up and down arrow keys can also be used to adjust the value.

Mute Buttons

Mutes the output volume for the stated output Channel. The muted channel VU Meter will be shown in grey but still indicates signal going through the channel.

X-OVER PAGE

X-Over Functions and Graph



X-over Graph

Shows visually all high and low pass filter settings. Each pair of filters are shown in a different colour indicated by the LED between the high and low pass input boxes.

Individual Presets (Not Available at Present)

This allows factory presets to be loaded from the PC to each individual output channel according to the sound system setup. This feature gives a starting point from which the system can be fine tuned by the user. For example:

Outputs 1 and 2 : BR-218B - dance floor subwoofers.

Outputs 3 and 4 : BR-15 high pass - dance floor mid/highs.

Outputs 5 and 6 : BR-6 - delay lines.

Factory presets cannot be changed by user. This feature is not available at the moment but will be made available in future updates.

High Pass Filter Settings

This function allows the user to set the high pass corner frequency and slope for each channel. The frequency can be selected between 20 Hz and 20 kHz in 1 Hz steps. The frequency can be set by inputing the value into the boxes, by using the up and down arrow keys or by using the grab handle for the relevant EQ on the graph with the mouse.

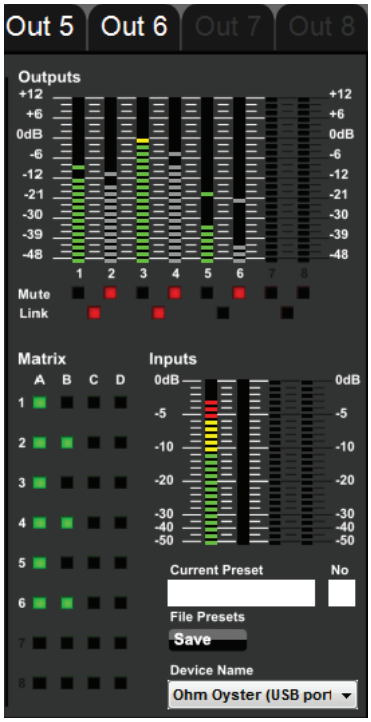
Available slopes include 6,12,18,24,36 and 48 dB per octave, Linkwitz-Riley, Butterworth and Bessel filters. 36 and 48 dB are not available for the OYSTER Unit.

Low Pass Filter Settings

This function allows the user to set the low pass corner frequency and slope for each channel. The frequency can be selected between 20 Hz and 20 kHz in 1 Hz steps. The frequency can be set by inputing the value into the boxes, by using the up and down arrow keys or by using the grab handle for the relevant EQ on the graph with the mouse.

Available slopes include 6,12,18,24,36 and 48 dB per octave, Linkwitz-Riley, Butterworth and Bessel filters. 36 and 48 dB are not available for the OYSTER Unit.

Matrix and Level Indicators



Output VU Meters

Indicates the output level for each output post processing.

Link Button

Links two output channels together to allow parameters to be changed in both channels at once. Channels that can be linked are 1&2, 3&4, 5&6 or 7&8. This feature is useful for stereo configuration as it allows identical settings.

Mute Buttons

Mutes the output volume for the stated output Channel. The muted channel VU Meter will be shown in grey but still indicates signal going through the channel.

Matrix Buttons

Allows free configuration to connect any and all inputs to any and all outputs. Matrix settings are shown on the main page via the matrix indicators.

Input VU Meters

Indicates the signal level coming into the unit.

Current Preset and No

This shows the Current preset that is loaded from the unit and the number assigned to it. When the unit is connected the active settings from the unit will automatically be loaded into the software. Any unsaved information in the software will be lost.

File Presets Save button

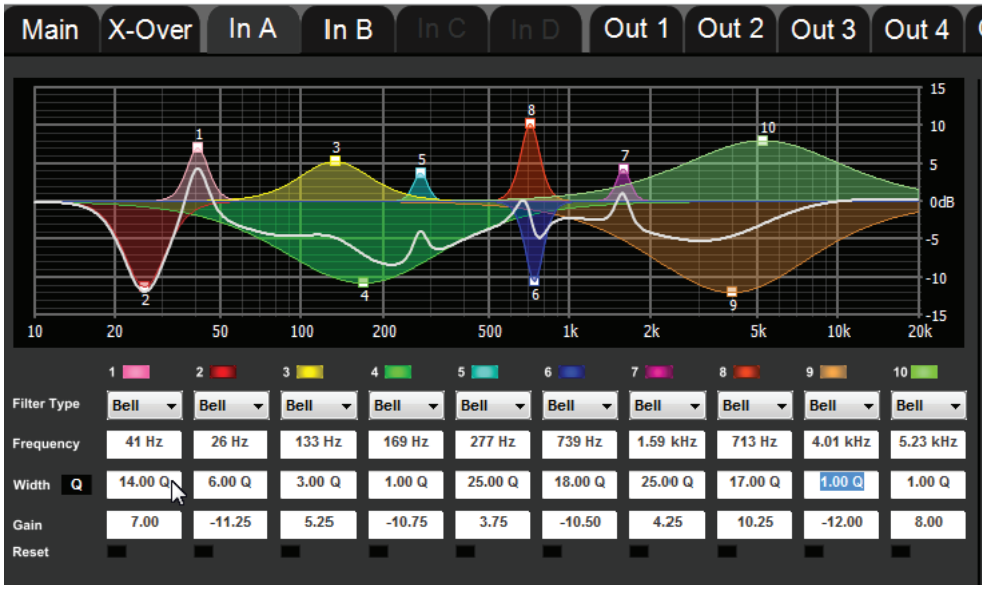
The save button allows you to save the settings that you have just created to the unit. A pop up window will appear asking for a name and memory slot number.

Device Name

The device connected will be displayed in this box. If more than one unit is connected via the network you can choose between units via the drop down box.

INPUT PAGE

Input EQ and Graph



Input EQ Graph

Indicates visually all the settings for the EQ and X-over curves.

Input EQ Indicator/Button

Indicates that the EQ Gain has changed value from 0. The colour of the button allows for easy recognition of the EQ on the graph. When the light is out it indicates that this EQ gain has not been changed from 0. Pressing this button will toggle the EQ on or off.

Filter Type Selector

Drop down menu to allow the user to choose the type of filter for the EQ.
Filter types will be unit specific.

Available Filters: Allpass; Bell; Highshelf; Lowshelf; Notch.

An Allpass filter is a signal processing filter that passes all frequencies equally, but changes the phase relationship between various frequencies.
These circuits are used as phase shifters and in systems of phase shaping and time delay.

Bell filter involves three adjustments: selection of the center frequency (in Hz), adjustment of the Q which determines the sharpness of the bandwidth, and the level or gain control which determines how much those frequencies are boosted or cut relative to frequencies much above or below the center frequency selected.

A high-shelf filter passes all frequencies, but increases or reduces frequencies above the shelf frequency by specified amount.

A low-shelf filter passes all frequencies, but increases or reduces frequencies below the shelf frequency by specified amount.

Notch in signal processing, a band-stop filter or band-rejection filter is a filter that passes most frequencies unaltered, but attenuates those in a specific range to very low levels. It is the opposite of a band-pass filter. A notch filter is a band-stop filter with a narrow stopband (high Q factor).

Frequency Input Box

This function allows the user to set the desired centre frequency for each EQ. The frequency can be selected between 20 Hz and 20 kHz in 1 Hz steps. The frequency can be set by inputing the value into the boxes, by using the up and down arrow keys or by using the grab handle for the relevant EQ on the graph with the mouse.

Width Button

This button allows the user to choose between Octave (Oc) and Q values in the EQ sections.

Width Input Box

Sets the width value for the EQ, Oc (Octave) or Q. This value dictates how wide the area is affected by the EQ.

Oc values are between 0.1 and -4.75 variable in 0.01 increments

Q values are between 0.2 and 25 variable in 0.1 increments.

The values can be set by inputing the value in to the text box or by using the up and down arrow keys.

Gain Input Box

Boosts or cuts the gain at the selected frequency. This can be set between -12 dB and +12 dB and is adjustable in 0.25 dB steps. The gain can be set by inputing the value into the boxes, by using the up and down arrow keys or by using the grab handle for the relevant EQ on the graph with the mouse.

Reset Buttons

Resets the values in the input boxes for the selected EQ and on the graph to the default settings.

Input Passband Functions

High Pass Filter

High Pass Filter Settings

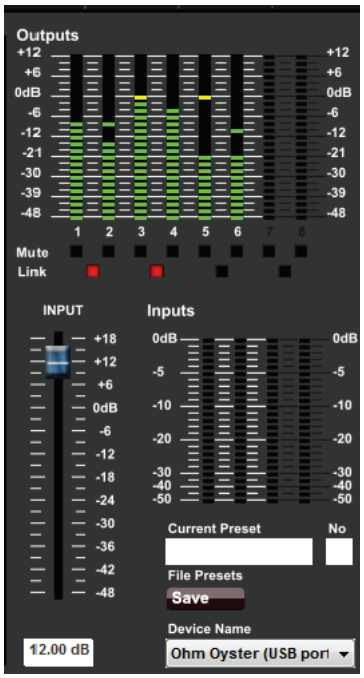
This function allows the user to set the high pass corner frequency and slope for each channel. The frequency can be selected between 20 Hz and 20 kHz in 1 Hz steps. The frequency can be set by inputing the value into the boxes, by using the up and down arrow keys or by using the grab handle for the relevant EQ on the graph with the mouse.

Available slopes include 6,12,18,24,36 and 48 dB per octave, Linkwitz-Riley, Butterworth and Bessel filters. 36 and 48 dB are not available for the OYSTER Unit.

Delay

Sets the delay for the selected input channel. Available between 0 to 2 sec in 0.01 ms steps.

Level Indicators



Output VU Meters

Indicates the output level for each output post processing.

Mute Buttons

Mutes the output volume for the stated output Channel. The muted channel VU Meter will be shown in grey but still indicates signal going through the channel.

Link Button

Links two output channels together to allow parameters to be changed in both channels at once. Channels that can be linked are 1&2, 3&4, 5&6 or 7&8. This feature is useful for stereo configuration as it allows identical settings.

Input VU Meters

Indicates the signal level coming into the unit.

Gain Faders

Adjusts the input gain for the input signal from -48 dB to +18 dB in 0.25dB steps.

Gain Input value

Shows the value set by the input fader. Input gain value can also be typed directly into the box between -48 dB to +18 dB for quick and accurate input. Up and down arrow keys can also be used to adjust the value.

Current Preset and No

This shows the Current preset that is loaded from the unit and the number assigned to it. When the unit is connected the active settings from the unit will automatically be loaded into the software. Any unsaved information in the software will be lost.

File Presets Save button

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Device Name

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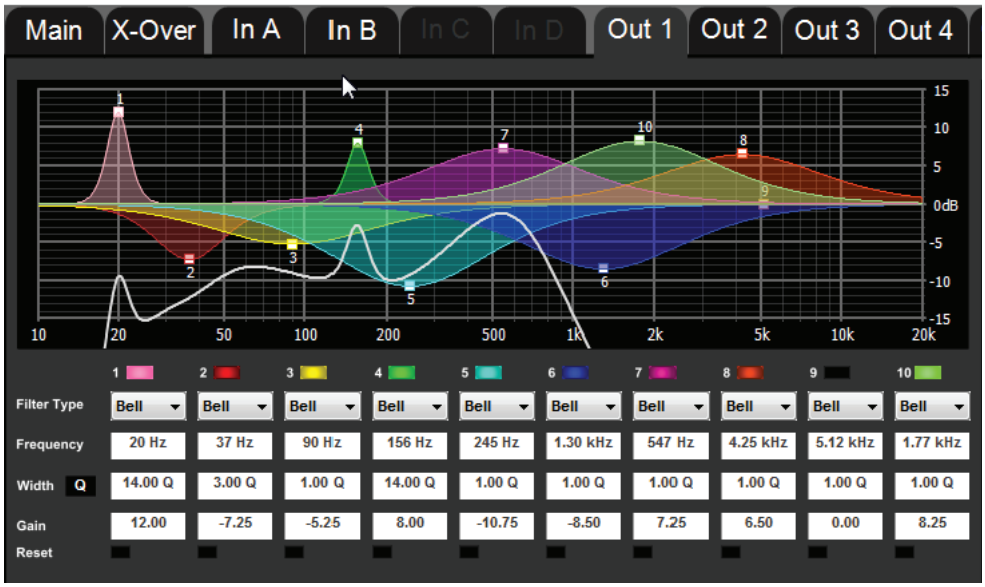
Output EQ and Graph



Output EQ Graph

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Output EQ Indicator/Button

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Frequency Input Box

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Width Button

This button allows the user to choose between Octave (Oc) and Q values in the EQ sections.

Width Input Box

Sets the width value for the EQ, Oc (Octave) or Q. This value dictates how wide the area is affected by the EQ.

Oc values are between 0.1 and -4.75 variable in 0.01 increments

Q values are between 0.2 and 25 variable in 0.1 increments.

The values can be set by inputing the value in to the text box or by using the up and down arrow keys.

Gain Input Box

Boosts or cuts the gain at the selected frequency. This can be set between -12dB and +12dB and is adjustable in 0.25 dB steps. The gain can be set by inputing the value into the boxes, by using the up and down arrow keys or by using the grab handle for the relevant EQ on the graph with the mouse.

Reset Buttons

Resets the values in the input boxes for the selected EQ and on the graph to the default settings.

Output Passband Functions

High Pass Filter Settings

This function allows the user to set the high pass corner frequency and slope for each channel. The frequency can be selected between 20 Hz and 20 kHz in 1 Hz steps. The frequency can be set by inputing the value into the boxes, by using the up and down arrow keys or by using the grab handle for the relevant EQ on the graph with the mouse.

Available slopes include 6,12,18,24,36 and 48 dB per octave, Linkwitz-Riley, Butterworth and Bessel filters. 36 and 48 dB are not available for the OYSTER Unit.

Low Pass Filter Settings

This function allows the user to set the low pass corner frequency and slope for each channel. The frequency can be selected between 20 Hz and 20 kHz in 1Hz steps. The frequency can be set by inputing the value into the boxes, by using the up and down arrow keys or by using the grab handle for the relevant EQ on the graph with the mouse.

Available slopes include 6,12,18,24,36 and 48 dB per octave, Linkwitz-Riley, Butterworth and Bessel filters. 36 and 48 dB are not available for the OYSTER Unit.

Delay

Sets the delay for the selected input channel. Available between 0 to 2 sec in 0.01 ms steps. Can be set by inputing the value into the boxes or by using the up and down arrow keys.

Polarity

Reverses the polarity on the signal going out.

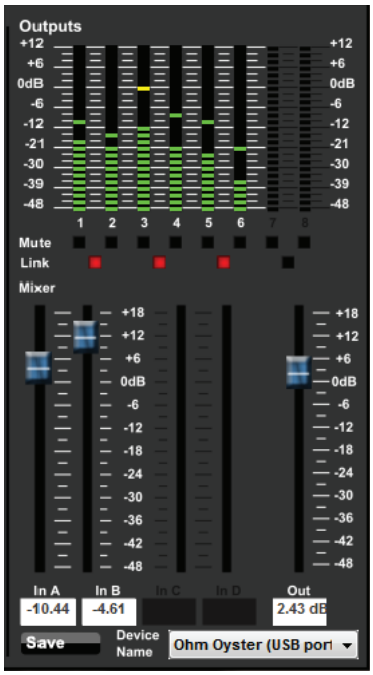
Limiter Threshold

Sets the limit threshold in the selected output, available between -48 dB and +12 dB in 0.25 dB steps. Can be set by inputing the value into the boxes or by using the up and down arrow keys.

Output Name

Allows you to set a name for the output. For example "Dancefloor".

Output mixer Functions



Output VU Meters

Indicates the output level for each output post processing.

Link Button

Links two output channels together to allow parameters to be changed in both channels at once. Channels that can be linked are 1&2, 3&4, 5&6 or 7&8. This feature is useful for stereo configuration as it allows identical settings.

Mute Buttons

Mutes the output volume for the stated output Channel. The muted channel VU Meter will be shown in grey but still indicates signal going through the channel.

Gain Faders

Sets the signal level coming from the matrix into the output channel between -24 dB to +0 dB in 0.25 dB steps.

Gain value

Shows the value set by the input fader. Input gain value can also be typed directly into the box between -24 dB to +0 dB in 0.25 dB steps, for quick and accurate input. Up and down arrow keys can also be used to adjust the value.

Output level faders

Adjusts the level for the output signal from -48 dB to +18 dB in 0.25 dB steps.

Output level value

Shows the value set by the fader. Output level value can also be typed directly into the box between -48 dB to +18 dB for quick and accurate input. Up and down arrow keys can also be used to adjust the value.

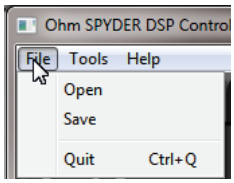
File Presets Save button

The save button allows you to save the settings that you have just created to the unit. A pop up window will appear asking for a name and memory slot number.

Device Name

The device connected will be displayed in this box. If more than one unit is connected via the network you can choose between units via the drop down box.

Menu

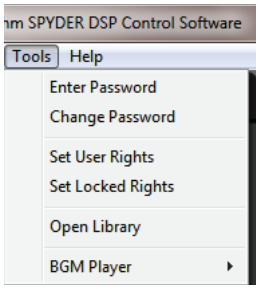


File

Open - opens a file/preset from your computer.

Save - Saves a file/preset to your computer.

Quit - quits the program, you get the option to save an unsaved setting at this point.



Tools

Enter Password - If a password has been set for the unit this allows access.

Change Password - Changes a preset password for the unit.

Set User Rights - allows the degree of user rights to be set for the unit.

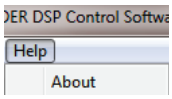
Set Locked Rights - sets the areas that users can or cannot access.

Open Library - uploads the presets in the preset library folder on the computer to the connected unit.

BGM Player - Opens the mp3 player.

Open file - Opens mp3 files

Open Directory - opens the directory where mp3 files are stored.



Help

About - gives information about the version of the software that you are using.

It is a good idea to check with the website for the latest versions of the software, always download the most up to date software manual at the same time as this will give information about any new features that have been added.

For software/manual updates visit ***www.ohm.co.uk/downloads*** .

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