



BY PRO-JECT AUDIO SYSTEMS

# INSTRUCTIONS FOR USE Pro-Ject Pre Box DS2 Digital

Dear music lover,

thank you for purchasing this Pro-Ject Audio Systems preamplifier.

In order to achieve maximum performance and reliability you should study these instructions for use carefully.



Warning of a hazard for the user, the unit or possible misuse



Important notice

## Safety instructions

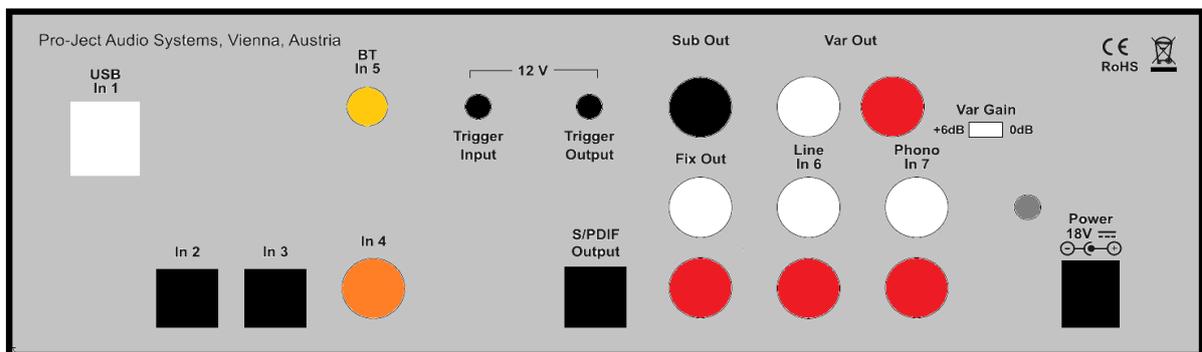
AC outlet voltages vary from country to country. Before connecting to the mains, make sure that the voltage in your area meets the voltage requirements printed on the power supply.

The power supply is used to disconnect the unit from the mains. Make sure that the power supply is easily accessible at all times. Never handle the device or the power supply while your hands are wet or damp.



Avoid letting liquids enter the device or the power supply. Never place any item containing liquid, such as a flower vase on or near the device. Never spill any liquid on the device or the power supply. Never place any naked flame sources, such as lighted candles on or near the device. The product shall not be used in damp or wet locations, next to a bathtub, sink, swimming pool or any other similar conditions.

## Connectors



Make all connections whilst the preamplifier is **disconnected from the power supply**.



Take care to connect the left and right channels correctly. The right channel is usually marked red, the left channel black or white.

Never use any other power supply than the one supplied with the unit except of Pro-Ject Power Boxes which can replace original power supplies.

## Analogue out

The unit offers following analogue RCA output sockets:

**Fix Out** - fixed output level

**Var Out** - variable output level controlled by the Volume knob on the front panel. Gain of the output can be increased by 6dB using the DIP switch **Var Gain**

**Sub Out** – subwoofer connection

**Headphone** - socket on front panel

## Inputs

**In1 USB:** is dedicated to connection to a Computer. Connect the USB-input of the unit (unit must be switched on) to a free USB-socket on your computer and turn it on/make sure it is powered on.

### Driver installation (Windows® operating systems only)

\* For Windows® operating systems a USB driver (supplied on CD) has to be installed.

Insert the included CD into the drive of you PC and follow the instructions.

Complete the installation by restarting the computer.

**After installing the driver, some settings have to be checked/done.**

For example - Windows 7® and newer operating system:

→ Control Panel → Hardware and Sound → Sound → Playback:

select **Speaker/Project Pre Box DS2 USB 2.0 Audio Out**

→ Properties → Supported formats: **make sure nothing is assigned**

→ Level → Sound: setting must be **100**

→ Enhancements: **disable all enhancements** → Advanced → Default Format: set to **studio quality 24/192**



*Please note: Connection should be made to an USB-socket of your computer directly. Connecting to USB-hubs or switches can cause problems.*

**In 2 to In 4:** Pre Box DS2 digital offers 3 digital S/PDIF inputs: **In 2** and **In 3** are optical inputs, **In 4** is coaxial input.

### In 5: BT connection

Make sure the antenna is attached to its connector **BT In 5** on the back panel prior using BT.

The LED for Input 5 BT works as a status indicator:

**Slow blinking:** no active BT connection

**Fast Blinking:** waiting for pairing confirmation

**Steady light:** BT device is connected



*Connection of a new device is only possible when LED is blinking slow.*

### Pairing with Android devices

Open **Settings** and tap on **BT**. Turn on BT and tap on **Scan**. Searched devices will show up. Tap on **Pre Box DS2 Digital** and confirm presented pairing code on your Android device. Then press **Subsonic** button on **Pre Box DS2 digital** (alternatively button **8** on remote control) when the blue LED of input 5 starts blinking fast. When paired, your Android device will show "Connected to media Audio". Now you can play music from your Android device over BT to **Pre Box DS2 Digital**.

### BT pairing with Apple devices

Tap on **Settings**, tap on **BT**, turn on BT. Your device will automatically start searching for available devices. Tap on **Pre Box DS2 Digital** and confirm by pressing **Subsonic** button on **Pre Box DS2 digital** (alternatively button **8** on remote control) when the blue LED of input 5 is blinking fast.

**Line In 6:** Analogue input. This input is dedicated to source with analog output signal, e.g.: tape deck, FM tuner.

**Phono In 7:** Connect the tonearm signal lead to the **Phono In 7** input of the amplifier. The MM/MC switch on the front panel allows to adapt to connected cartridge type. The earthing wire may be connected to the screw terminal if you encounter hum problems when using the turntable.

## Mains power connection and methods to switch the unit on and off

Connect the low voltage plug from the power supply to the **Power 18V** socket of the preamplifier **before** connecting the power supply to the mains. The unit can be switched on and off by using 2 different methods which are equal in priorities.



*We recommend to set the volume control to minimum, prior to switching on.*

### 1. Using front pushbutton to switch on or into standby

The pushbutton on the front panel of the unit alternately turns the power on or returns it to standby mode. The blue LED on the front panel shows that the unit is powered on. If a trigger signal is present the unit can't be switched off by the pushbutton.

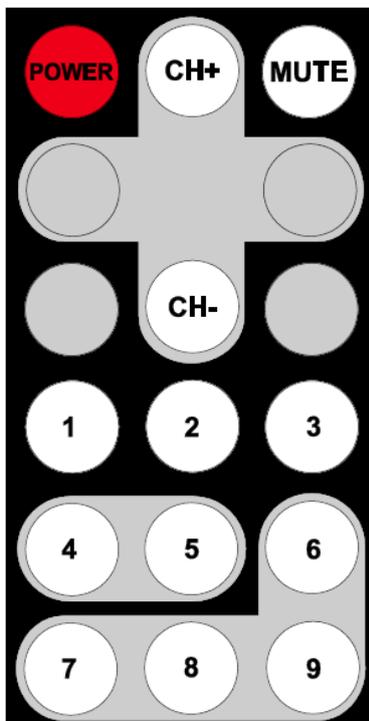
### 2. Remote power on - triggers

The unit can be switched on via other Box Design components when a 12V trigger voltage is present at the 2.5mm socket marked **Trigger Input**. Special power-on cables (polarity  $- \ominus +$ ) in diverse lengths are available as accessories. The remote power-on signal can be relayed to further units via the **Trigger Output** socket. When the 12V trigger signal is switched off, the unit will also switch off.



*Trigger cables may only be plugged into the sockets when the unit is disconnected from the power supply and from the mains. Failure to do so may result in damage of the unit.*

## Remote control



**POWER** turns the unit on or back into standby

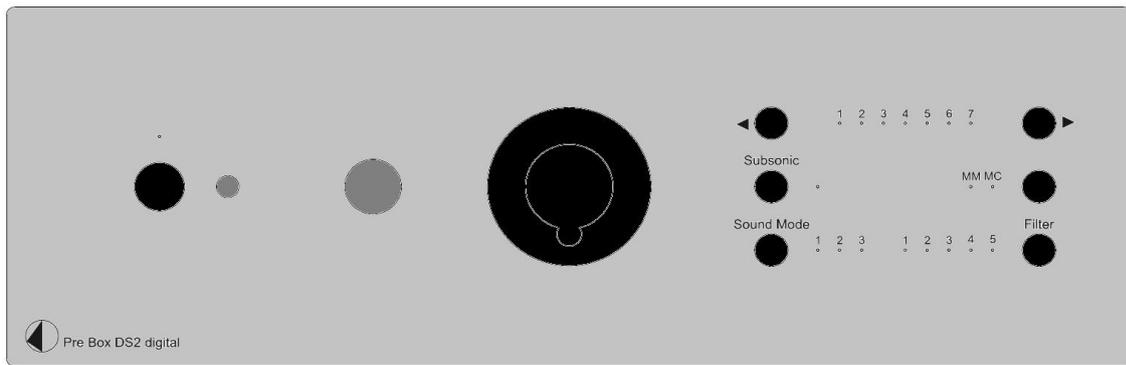
**MUTE** activates and deactivates mute. If mute is engaged, the blue LED above the ON/OFF switch flashes.

**CH+/CH-** select the inputs in turn

**1-7** access to a specific input directly

**8** confirms BT pairing

## Front panel



### Headphone connection

Connect the headphones to the socket on the front panel (Jack 6,3mm). The rear outputs are not disconnected when headphones are in use.

### Volume

Adjust the volume to the desired level, using the large knob in the middle of the front panel.

### Input selector

After the unit is powered on, operating the buttons marked with ◀▶ select the inputs. The selected input will be shown by the corresponding LED.

### Subsonic

The button activates or deactivates subsonic filter. Blue LED is on when subsonic filter is active.

### MM MC

The button selects between MM and MC cartridge.

## Sound Mode

### Mode 1:

Upsampling: this mode upsamples all incoming signals to highest possible output rate:

<b>Sound Mode 1</b>			
input	input PCM sampling rate [kHz]	output PCM sampling rate [kHz]	available filters
USB	44	705	1,2
	48	768	1,2
	88	705	1,2
	96	768	1,2
	176	705	1,2,3,4
	192	768	1,2,3,4
	352	705	1,2,3,4
	384	768	1,2,3,4
	705	705	1,2,3,4
	768	768	1,2,3,4
S/PDIF	44	768	1,2
	48	705	1,2
	88	768	1,2
	96	705	1,2
	176	768	1,2,3,4
	192	705	1,2,3,4
	input DSD	output DSD	
USB DSD	64	256	1,2,3,4
	128	256	1,2,3,4
	256	256	1,2,3,4

### Mode 2:

Conversion to DSD: all incoming signals are converted to DSD format

<b>Sound Mode 2</b>			
Input	input PCM sampling rate [kHz]	output DSD	available filters
USB	44-48	128	1,2
	88-96	256	1,2
	176-768	256	1,2,3,4
S/PDIF	44, 48, 88	128	1,2
	176	128	1,2,3,4
	96	256	1,2
	192	256	1,2,3,4
USB DSD	Same as with Sound Mode 1		

**Mode 3:**

USB Upsampling bypass:

USB Input sampling rate remains the same as USB output sampling rate.

Sound Mode 3	
USB input	
sample rate [kHz]	available filters
44-96	1,2,3,4
176-768	1,2,3,4,5

DSD input format remains the same as DSD output format.

S/PDIF input rates are upsampled to PCM352kHz / PCM384kHz

Sound Mode 3			
input	input PCM sampling rate [kHz]	output PCM sampling rate [kHz]	available filters
S/PDIF	44	384	1,2
	48	352	1,2
	88	384	1,2
	96	352	1,2
	176	384	1,2,3,4
	192	352	1,2,3,4

**Filters**

Filter button toggles between 5 filters. Availability of filters depends on input format and frequency shown in previous article:

Filter	Sound type	Filter name	Remarks	Sound source positioning	Edge
1	Traditional sound	Sharp Roll-off FIR filter	No echo, natural sound	Close	Ultra sharp
2	Acoustic sound	Short Delay Sharp Roll-off FIR filter	Minimal echo, original sound		Sharp
3	Traditional tone	Slow roll-off FIR filter	Minimal echo, original sound		Middle
4	Acoustic tone	Short Delay Slow Roll-off FIR filter	Post echo, bass sound		Slow
5	Natural tone	Super Slow Roll-off FIR filter	Pre and post echo, powerful sound	Far	Super Slow

## DSD playback

Up to now DSD playback on a computer using a Windows® operating system is only reliably possible with the PC software player Foobar2000.

Nevertheless, this player has to be prepared, out of the box it is not capable to play DSD. Please read the following instructions how to prepare the player.

You will need to download the following software and drivers from the internet:

The software player Foobar2000 <http://www.foobar2000.org/download>

The Foobar2000 for ASIO playback [http://www.foobar2000.org/components/view/foo\\_out\\_asio](http://www.foobar2000.org/components/view/foo_out_asio)

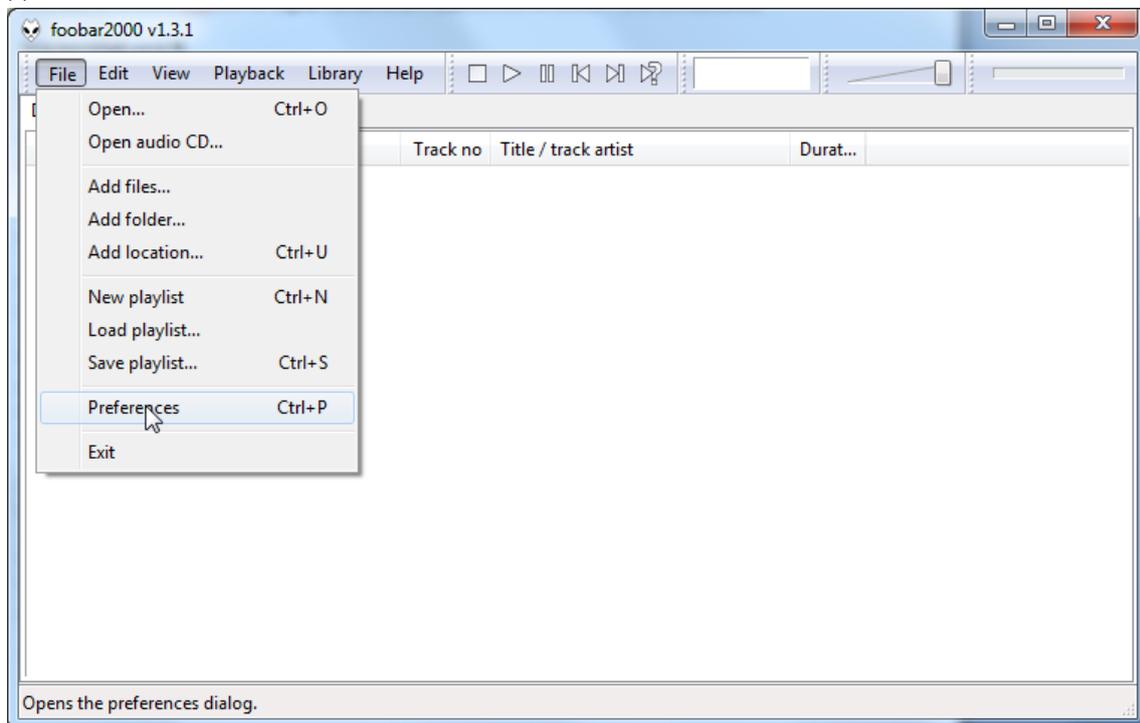
The Foobar2000 for SACD playback [http://sourceforge.net/projects/sacddecoder/files/foo\\_input\\_sacd/](http://sourceforge.net/projects/sacddecoder/files/foo_input_sacd/).  
Unzip the enclosed files and store into a folder of your choice.

The actual Windows® USB driver comes with the unit on CD. Store all files from the CD on your computer into a folder of your choice.

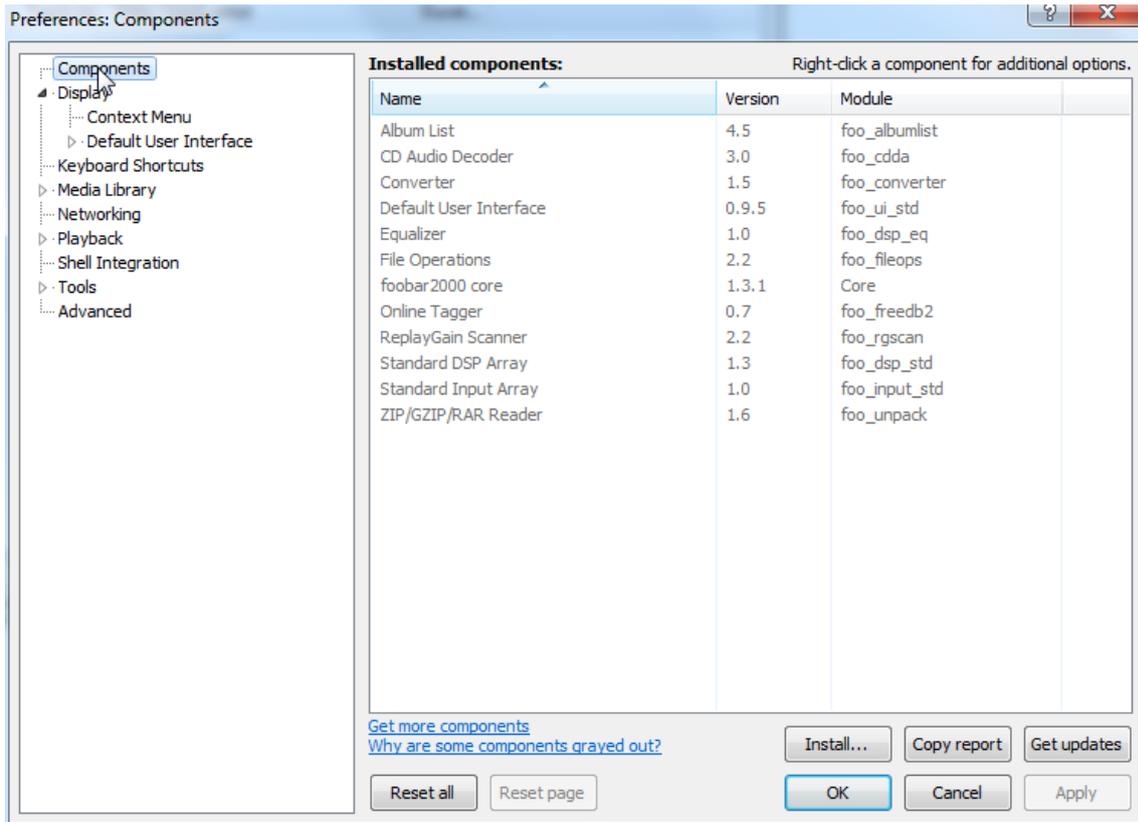
Please install the USB driver first. To do that, in the folder, where you stored the files to, start the installation by double clicking on **Setup.exe**. Follow the instructions of the installation program.

Please install Foobar2000 now by double clicking on the downloaded file. Please start Foobar2000 after that.

Now you have to integrate the downloaded components into Foobar2000. Please do the following: In the upper menu bar, click on **File** and then on **Preferences**.



In the window that now opens, please click on **Components**.



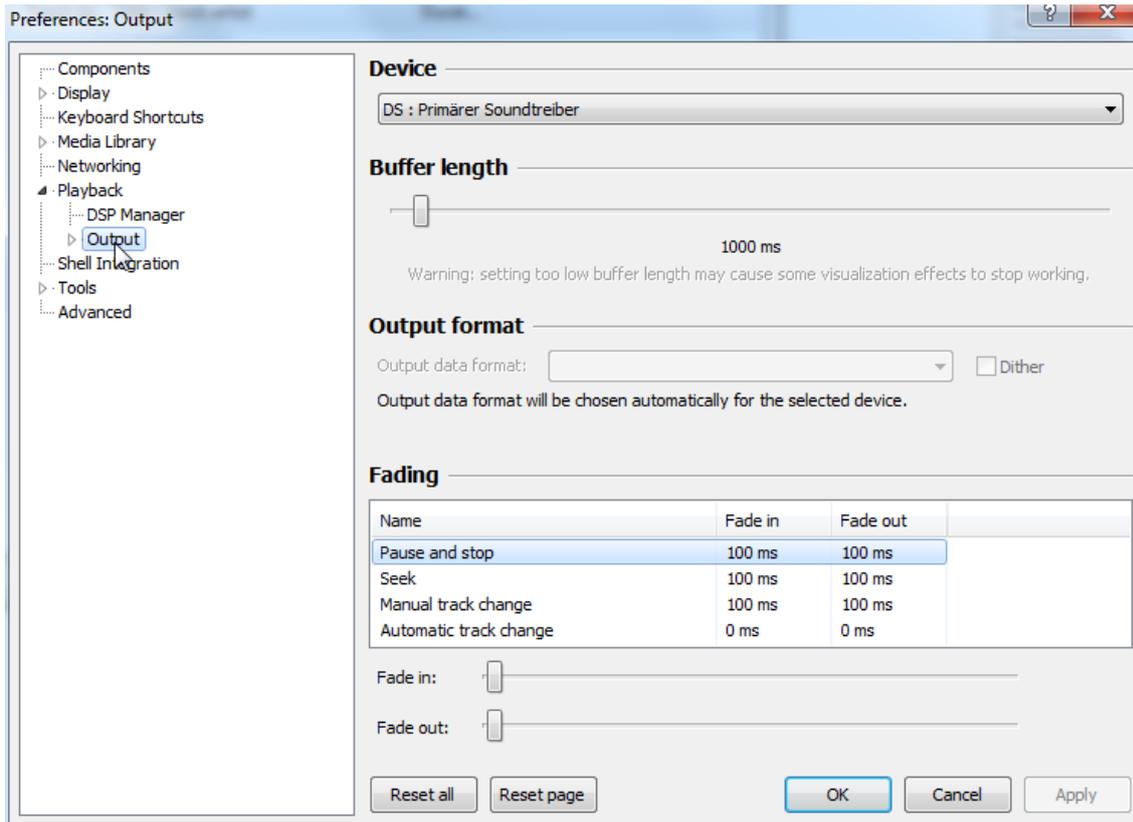
Now click on **Install...** (lower right) and search for **foo\_out\_asio.fb2k-component** in the opened explorer window. Click on it and after that on **Apply** to activate the Component. Foobar2000 asks now, if you agree to start, restart the program to activate the changes. Confirm with **Yes**. Foobar2000 restarts.

Now exit Foobar2000 and double click on the program **ASIOProxyInstall-0.6.5.exe** in the folder, where you unzipped the Component **foo\_input\_sacd** to. Follow the instructions of the installation program.

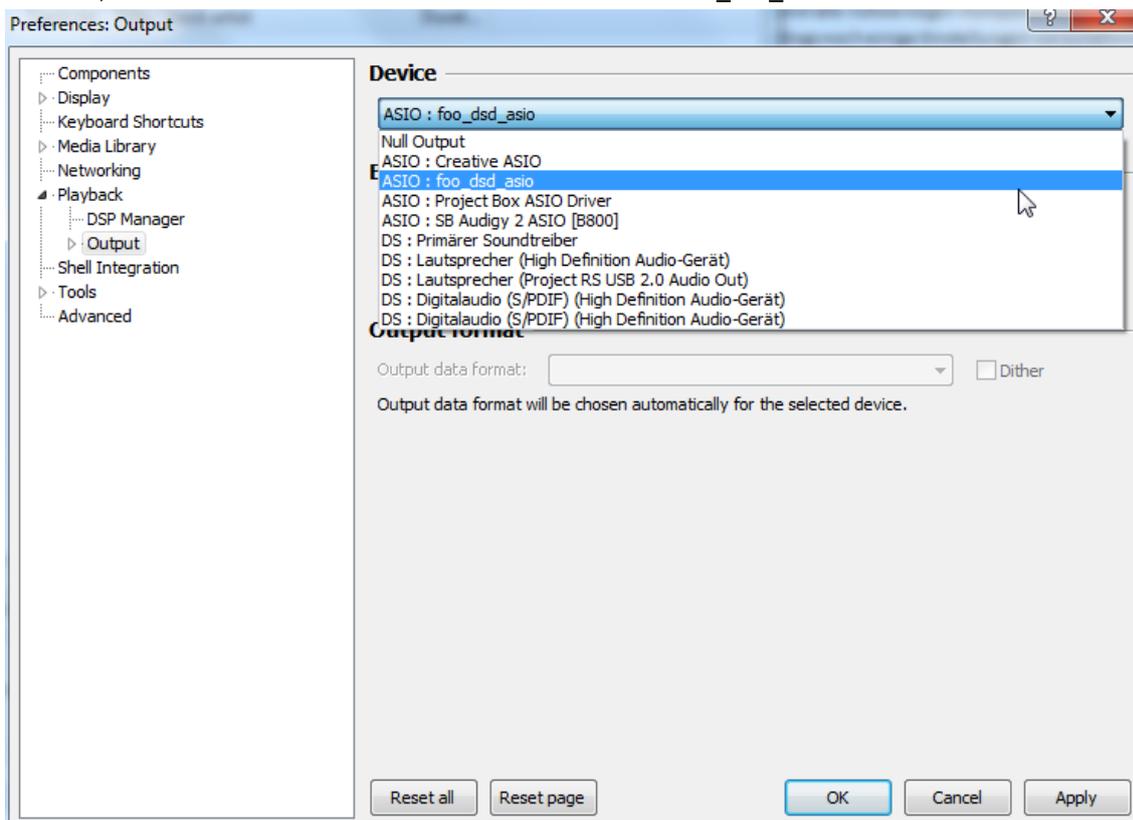
Now please start Foobar2000 again and open the **Preferences** Box by clicking on **File/Preferences**. Click on **Install** and go the folder where you unzipped **foo\_input\_sacd** to. Click on **foo\_input\_sacd.fb2k-component** and confirm with **Apply**. Foobar2000 asks once again, if you agree to start restart the program to activate the changes. Confirm with **Yes**. Foobar2000 restarts.

Now you have installed all necessary components. Before you can start to playback DSD files however, you have to carry out some settings. For that please open the **Preferences** Box by clicking on **File/Preferences** again.

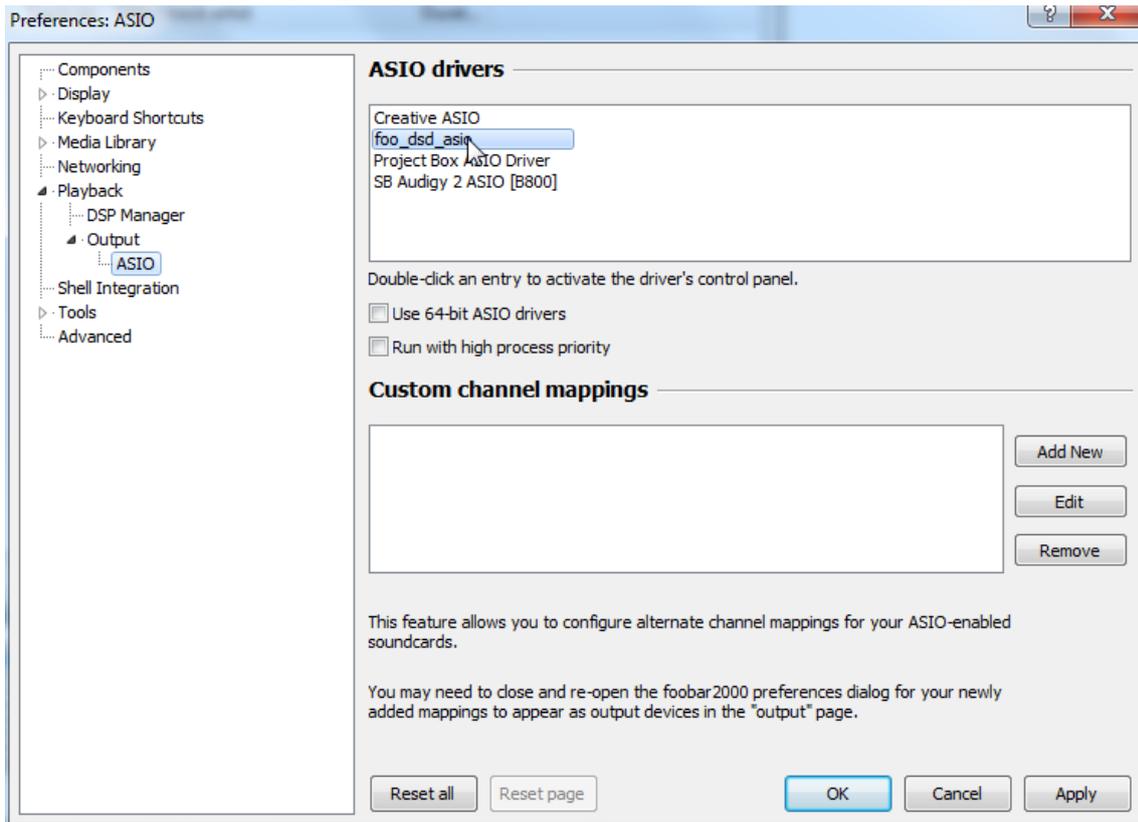
Click on the small triangle to the left of **Playback** now and after that on **Output**.



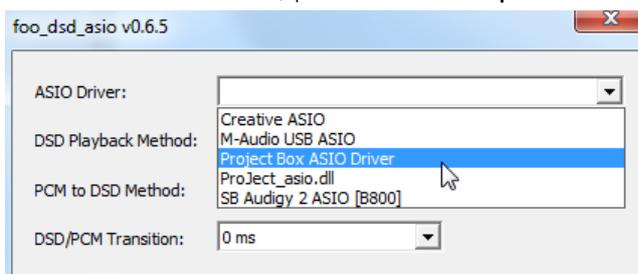
In the dropdown menu below **Device**, choose the driver **Asio: foo\_dsd\_asio**.



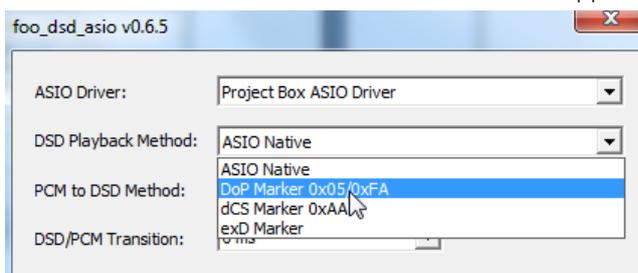
Click **Playback** and the small triangle on the left side of **Output** and then on **ASIO**. Below **ASIO Drivers** please double click on **foo\_dsd\_asio**.



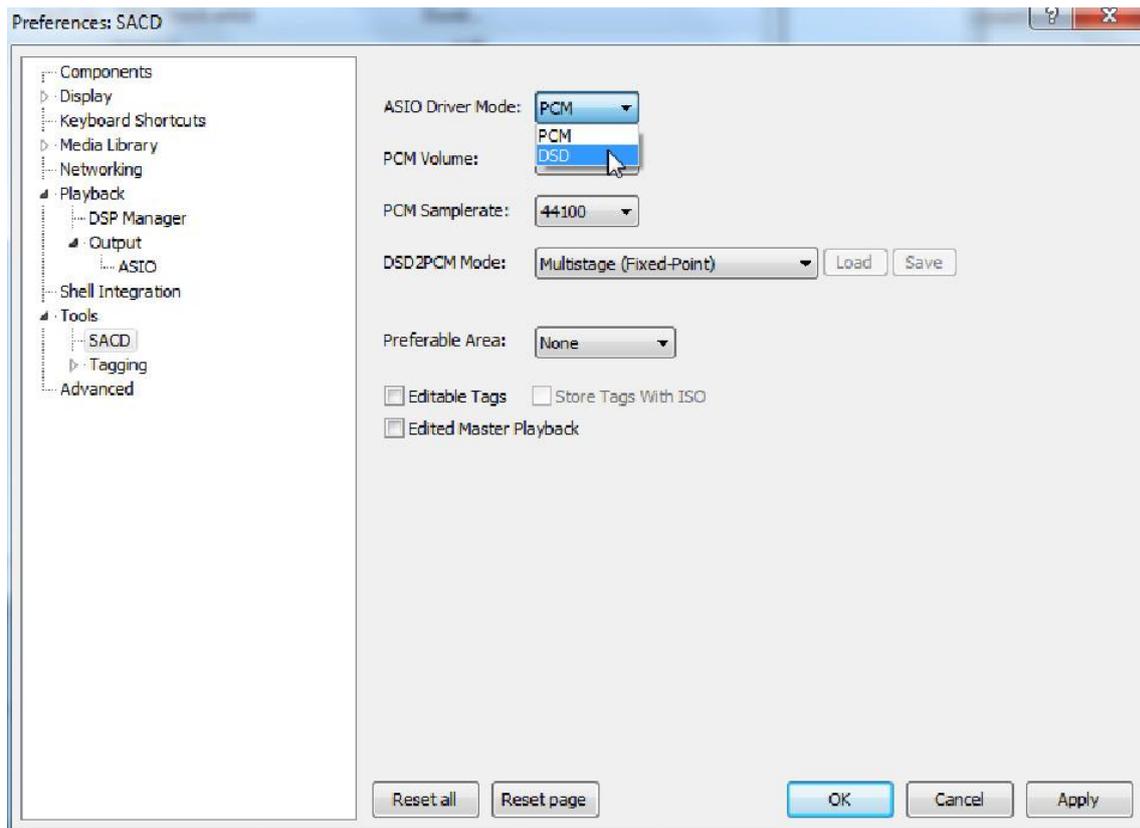
In the window that follows, please choose **Project Box Asio Driver** and in the dropdown menu **ASIO Driver**.



In the same window, please choose **DoP Marker 0x05/0xFA** in the dropdown menu **DSD Playback Method**. Close the window with a click on the small **X** in the upper right corner.



Select **Tools**, click the small triangle to the left and then **SACD**. Choose **DSD** in the dropdown menu **ASIO Driver mode**.



Now you have completed all necessary settings. Close the **Preferences** window with a click on **OK**. Now you can playback DSD files with the extensions **DSF** and **DDF**. You can open the files in Foobar2000 either with your mouse via drag and drop or with the **File** menu in the upper menu bar.



*Please be aware that downloads from the Internet are made entirely at your own risk. Under no circumstances can we carry responsibility or provide support for software products sourced from the internet or for any damage or problems arising from the use thereof. All downloads should be checked with an up-to-date anti-virus programme.*

## Replacing batteries

Proceed as follows:

- Unlock and slide open the battery case cover
- Replace the battery.  
Make sure the battery is the right way round!
- Close the battery case cover

Battery type: 1 x CR2032 / 3V or 1 x CR2025 / 3V



*Do not dispose the batteries as ordinary domestic refuse. Please dispose your exhausted batteries at the appropriate collection sites - usually located at supermarkets and drugstores.*

## Universal-Remote Control-it DS/RS

Control-it DS/RS is optionally available and allows you to comfortably control this and many other Pro-Ject Box Design products on one remote.

## Technical specifications Pro-Ject Pre Box DS2 digital

2 analogue inputs	1x Line In (RCA), 1x Phono Line In (RCA)
Phono input specifications	MM: 47kohms/50pF; MC: 10ohms
5 digital inputs	1x coax (S/PDIF), 2x optical (TOSlink®), USB B, BT(aptX)
D/A-converter	AK4490 32-bit PCM 768kHz / DSD256
Sampling rate converter	AK4137EQ upsampling to 768kHz
Sampling rates	32/44,1/48/88,2/96/176,2/192/352,8/384/768 kHz
DSD support	DSD64, DSD128 and DSD256
Filter settings	5 different selectable on front
Frequency response	20Hz - 20kHz (+0/-1dB)
Analogue outputs	6.3mm Headphone (front), 1x Subwoofer(RCA), 1x Fixed (RCA), 1x Variable Out (RCA)
Output voltage	2,2 Veff (switchable +6dB gain gives 4,4 Veff )
Minimal recommended headphone impedance	8ohms
Headphone output power	100mW/8ohms
THD	0,00085%
Crosstalk	-117dB (10kHz@0dB)
Signal to noise ratio	113dB (20 - 20.000 kHz)
Power consumption	<1 watt standby, 600mA max
Outboard Power supply	18V/1000mA DC (included)
Dimensions W x H x D (D with sockets):	206 x 71 x 200 (220) aluminium 240 x 72 x 199 (220) wood
Weight (without power supply):	1.570g aluminium, 2.000g wood

## Service

Should you encounter a problem which you are not able to alleviate or identify, please contact your dealer for further advice. Only if the problem cannot be resolved there, the unit should be sent to the responsible distributor in your country.

## Warranty



*The manufacturer accepts no responsibility for damage caused by not adhering to these instructions for use. Modification or changes to any part of the product by unauthorized persons release the manufacturer from any liability over and above the lawful rights of the customer.*

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