BOX•DESIGN

BY PRO-JECT AUDIO SYSTEMS

INSTRUCTIONS FOR USE
Pro-Ject Phono Box DS2 USB

Dear music lover,

thank you for purchasing a Pro-Ject Audio phono amplifier.
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 connect/disconnect the unit from the mains. Make sure that the power supply is easily accessible at all times. Never handle the device, 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
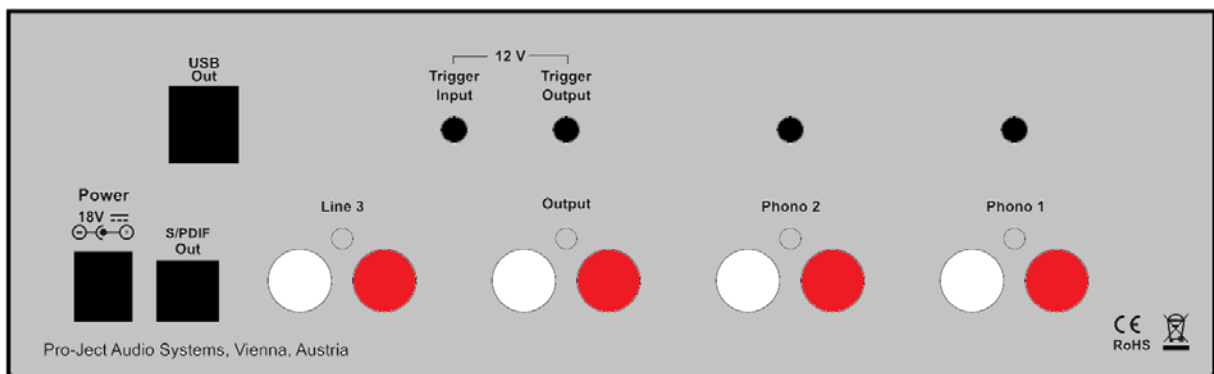
⚠️ *Make all connections whilst the phono amplifier is disconnected from the power supply.*
Take care to connect the left and right channels correctly. The right channel is usually marked red, the left channel black or white.
*Do not connect the phono amplifiers output to a phono input (sometimes labelled **gram**, **disc** or **RIAA**) on the amplifier.*
Never use any other power supply than the one supplied with the unit.

Connecting one or two record players

Connect left and right channels of the tonearm signal leads to the sockets marked **Phono1** or **Phono2** of the phono amplifier. The earthing wire may be connected to the screw terminal (located above RCA sockets) if you encounter hum problems when using the record player.

Line level input

A line level signal source can be connected to the preamplifier using **Line 3** socket on the back panel. This signal can be converted to digital data using coaxial S/PDIF output or USB output.

Connection to the amplifier

Connect the **Output** of the phono preamplifier to a line input (such as **AUX**, **CD**, **Tuner**, **Tape** or **Video**) on your amplifier.
Alternatively connect the S/PDIF digital output to the corresponding digital input of the amplifier or a DAC.

Connecting to a computer

Connect the **USB Out** of the unit to a free USB-socket on your computer and turn it on. Make sure the computer is powered on.

* For Windows® operating systems an USB Class 2 driver (supplied on CD) has to be installed.

Mac OS® operating systems do not need an additional driver or setup.

Linux operating systems include an USB Audio Class 2 driver from Linux Kernel 2.6.35 and higher.

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

Mains power connection

Connect the low voltage plug from the power supply to the **Power 18V DC** socket of the phono amplifier before connecting the power supply to the mains.

Remote power on - triggers

The phono amplifier can be switched on & off via a special connection from the other Pro-Ject products equipped with trigger connections via the 2,5mm socket marked **Trigger IN**.
A 45cm long power-on cable (polarity −⊙−+) is supplied for this purpose. Longer cables are available as accessories. The remote power-on signal can be relayed to further units via the **Trigger OUT** socket.

Front panel controls
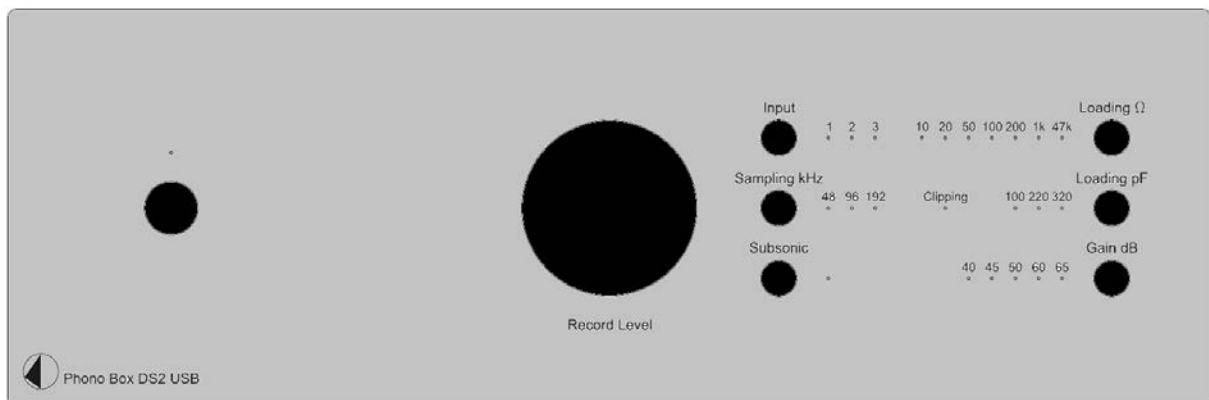
Stand-By

The button on the left hand side of the front panel alternately turns the power on or returns it to standby mode. The blue LED above the stand-by push button shows that the unit is switched on.

Settings

The three function keys **Loading Ω**, **Loading pF**, **Gain dB** on the right hand side are used to set input impedance, input capacitance and input gain. All settings are stored automatically.

☞ *To find out which type your cartridge is, please consult the literature accompanying your cartridge. The literature for cartridges should also specify the correct input impedance (low-output MC cartridges) and the correct input capacitance (high-output MC and MM cartridges), into which the cartridge is designed to work. If in doubt please consult your dealer.*

Loading Ω (input impedance)

The button **Loading Ω** sets the input impedance to desired value (low output MC cartridges: 10Ω-20Ω-50Ω-100Ω-200Ω-1kΩ or 47kΩ for high output MC and MM cartridges)

Loading pF (input capacitance)

The button **Loading pF** sets the capacitance for high output MC and MM cartridges. (Input capacitance is irrelevant for low-output MC cartridges)

☞ *pF - all LEDs off = 47pF. LEDs **pF 100, 220** and **320** - readout always + 47pF*

Gain dB

Gain for the outputs can be set from 40dB to 65dB in steps of 5dB or 10dB. Any change will be automatically stored for the chosen input, when input is changed or the unit is switched into standby mode.

Examples of typical settings

Ortofon 2M Red (MM)	➢ input impedance: 47kohms ➢ input capacitance: 100pF ➢ input gain: 40dB
Ortofon X5-MC (High-Output MC)	➢ input impedance: 47kohms ➢ input capacitance: 320pF ➢ input gain: 50dB
Ortofon Rondo Red (Low-Output MC)	➢ input impedance: 10ohms. ➢ input capacitance is irrelevant ➢ input gain: 60dB

Input selector

After the unit is powered on, operating the push button **Input** selects the inputs. The selected input will be indicated by the corresponding LED:
1 – Phono 1
2 – Phono 2
3 – Line 3

Sampling frequency

The push button selects the frequency of digital output signal. The selected frequency will be indicated by the corresponding LED.

Subsonic

The push button turns on and off subsonic filter. The corresponding LED indicates the current status

Setting the record level

The record level knob on the front panel is used to set the level of the analogue signal going to the A/D converter. A clipping LED indicates when the level is too high and the signal is distorted.

Technical specifications Pro-Ject Phono Box DS2 USB

[A] Typical for low output MC cartridges, [B] typical for MM or high output MC cartridges
* Input capacitance is irrelevant for low-output MC cartridges

Input impedance:	10, 20, 50, 100, 200ohms, 1000 ohms and 47kohms[A]
Input capacitance/impedance:	47pF, 147pF, 267pF and 367pF */47kohms [B]
Input gain:	40, 45, 50, 60, 65dB
Noise floor:	80dB (A weighted) at 40dB input gain
THD:	<0,02%
RIAA-equalisation curve accuracy:	20Hz - 20kHz / max. 0,3dB
Subsonic filter:	at 20Hz with 12dB/octave
Phono Inputs:	2 pairs RCA/phono sockets
Line input:	1 pair RCA/phono sockets
Line output:	1 pair RCA/phono sockets
Digital outputs:	1x USB B-type
	1x S/PDIF coaxial
Outboard power supply:	18V/500mA DC, suitable for your country's mains supply
Power consumption:	100mA DC, <1W in standby
Dimensions W x D x H (D with sockets):	206 x 227 (239) x 70,6 mm aluminium
	240 x 227 (239) x 72 mm wood (including wooden side panels)
Weight:	1500g aluminium, 1780g wood (without any accessories)

Potential incorrect use and fault conditions

No signal on one or both channels:
    No connection between record player and phono preamplifier or amplifier.
    This could be due to a faulty plug, broken wire or solder joint or simply loose plug/socket connection.

Strong hum:
    No earth connection from cartridge or arm, or arm cable to phono amplifier, or earth loop.

Output too quiet or too loud, or distorted:
    Input gain incorrectly set - input overloading or insufficiently amplified.

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.

Copyright, trademarks

Pro-Ject Audio Systems is a registered Trademark of H. Lichtenegger.

This guide was produced by: Pro-Ject Audio Systems Copyright © 2016. All rights reserved.

The information was correct at the time of going to press. The manufacturer reserves the right to make changes to the technical specification without prior notice as deemed necessary to uphold the ongoing process of technical development.