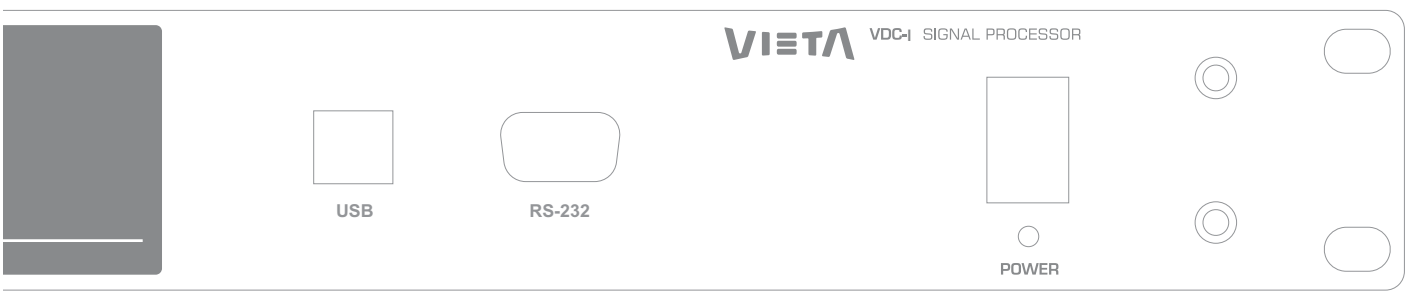
VIETA



VDC-1

Quick Start
User Manual

WARRANTY CONDITIONS

VIETA AUDIO, S.A. products are covered by a 2-year warranty.
This warranty covers all possible manufacturing faults in all VIETA products sold in Spain by authorised distributors. VIETA products purchased abroad are covered by the warranty granted by the local distributor.

In order to claim under this warranty, the owner must refer to a technical assistance service provider authorised by VIETA AUDIO, S.A. and present the corresponding receipt of purchase.

This warranty **DOES NOT COVER:**

· Damage caused by accidents, inappropriate use or abuse.
· Damage caused by external elements or natural disasters.
· Theft.
· Damage caused by product handling by staff not authorised by VIETA AUDIO S.A.
· Underlying damage in other parts.
· Products purchased outside Spain or from unauthorised distributors.
.· Any costs deriving from the installing or uninstalling of the product.

Any product handling by persons not authorised by VIETA AUDIO, S.A. will automatically render this warranty null and void.

Please consult your local distributor to ascertain the nearest authorised technical service provider to your place of residence.

EC DIRECTIVES AND SAFETY REGULATIONS

Radiated emissions:	EN55013-1 (1996)
RF immunity:	EN55103-2 (1996)
Electrical safety:	EN60065 (1993)
	IEC65 (1985) and amendments 1,2 and 3

This product also meets the specifications of the following safety directives:

Low voltage directive: 73/23/EEC
EMC directives: 89/336/EEC and amendment 93/68/EEC

WARNING: In order to reduce the risk of fire or electric shock, do not expose the equipment to rain or dampness.

This symbol warns the user of the presence of dangerous exposed voltages inside the unit that would be sufficient to pose a risk by electric shock.

This symbol notifies the user that the manual accompanying the equipment contains important instructions for use and maintenance.

This anagram certifies that the equipment complies with all the corresponding European Community regulations.

UNPACKING THE VDC-1 PROCESSOR

Before you unpack the processor, check the packaging for any damages. If there are any serious irregularities, make a complaint to your freight forwarding agency. Once you have unpacked the processor and checked it is working properly, keep the original packaging in case you need to send it back to the distributor.

ASSEMBLY INSTRUCTIONS:

This equipment has been designed to be assembled inside a rack. It should be installed in such a way that the mains connection plug remains easily accessible. The front section of the unit and its back panel should always remain accessible in order to enable the unit to be connected up to other equipment.

The side panels, on the other hand, remain inaccessible whilst the unit is in operation since certain parts of the equipment's chassis may reach extremely high temperatures.

In order to avoid overheating, the equipment should be assembled with enough space for ventilation. The minimum space recommended by the manufacturer is 1 cm on either side and 5 cm at the back.

On the front, the unit has 4 anchor points to attach it to a rack. The screws to be used are M6 screws, depending on the length and type of characteristics of each rack.

FOR YOUR SAFETY:

- Do not obstruct the air vents.
- Do not dissemble or modify the unit in any way.
- If the unit is to remain out of use for an extended period of time, unplug it.
- Sources of flame such as lit candles must not be placed on the top of the unit.
- The unit must not be exposed to water drops or spray.
- Vessels filled with liquid, such as full glasses, must not be placed on top of the unit.
- Ensure that the unit is properly grounded.

CONTENTS

1.- DESCRIPTION

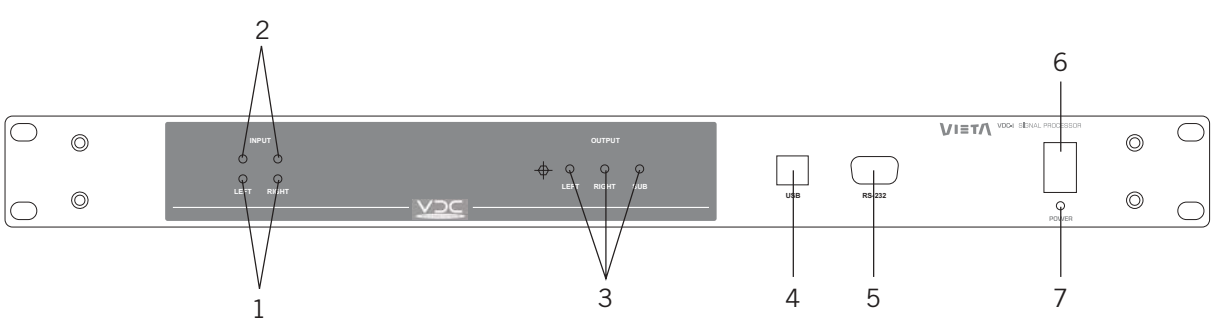
Thank you for purchasing the VIETA VDC-1 and placing your trust in our brand for the purposes of performing your applications. We recommend that you read this instruction manual in full in order to obtain maximum performance from your system.

The VDC-1 is an audio processor specifically designed to be used with the VIETA professional sound systems. Jointly using these will provide you with greater sound performance and will ensure better safety.

The VDC-2 is fitted with two inputs that are balanced by means of an XLR connector (L, R) and has two full range outputs (L, R) and one mono subwoofer output.
All outputs are balanced using an XLR connector.

The VDC-2 is a digital audio processor with 60 memories. Forty of these are used by VIETA for standard factory configurations and the 20 remaining are available for the user. **In all factory configurations, the limiters are adapted for 32dB gain stages**. If this is different, the user can change it via the VDC-1 software and save it in an available memory. The VDC-1 includes its own VDC software (under Windows 95/98/ME/NT/2000/Me/XP). The memory is changed on the rear panel where there is a 6-position switch. Select the memory number for the system chosen, start up the VDC-1 and the machine switches on in the memory desired. The only parameter that the user can change is the VDC-1 limiters control and always via the PC, never on the VDC-1.
The memory is changed from the VDC-1 by the binary switch on the rear panel. First switch off the VDC-1 and once the memory has been changed restart the VDC-1.

2.- FRONT PANEL



2.1.- Description of front panel

1.- INPUT SIGNAL INDICATORS
The signal leds show whether there is a signal present in the channels.

2.- INPUT CLIP INDICATORS
When these leds light up, they indicate that the relevant channel is flooding the processor input, producing a clipped and distorted signal. **These leds should not light up.**

3.- OUTPUT SIGNAL INDICATORS
These show whether there is a signal present in the outputs

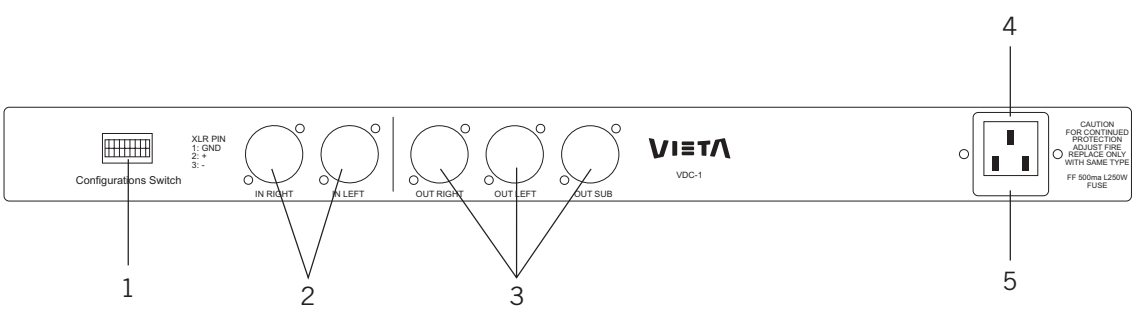
4.- USB CONNECTOR
Female USB connector for connection with PC

5.- RS-232C CONNECTOR
9-pin male Sub-D connector for connection with PC

6.- ON SWITCH
Turns the processor power supply on and off

7.- ON LED INDICATOR
Shows that the processor is connected to power supply when the switch is pressed

3.- REAR PANEL



3.1.- Description of rear panel

1.- BINARY SWITCH
Switch to choose the memory of the system in which the VDC-1 is to operate

2.- SIGNAL INPUTS
3-pin female XLR connectors

3.- SIGNAL OUTPUTS
3-pin male XLR connectors

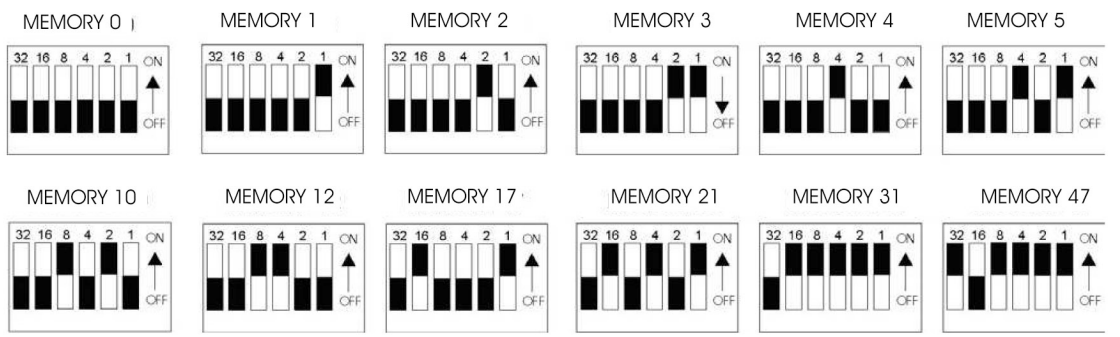
4.- IEC POWER SUPPLY CONNECTOR
The connection cable is supplied with the VDC-1. This includes a precise switched power supply and accepts between 85 and 264 volts, being automatically regulated and guaranteeing that the unit works properly.

5.- FUSE HOLDER
1st fuse holder (Only replace with equivalent fuses)

4.- SELECTING MEMORIES

Memory selection examples.

The VDC-1 must be switched off before a memory can be changed.



4.1.- List of memories

Doline

1	Do-2
2	Do-2 + Do-110S
3	Do-5
4	Do-5 + Do-110S
5	Do-8
6	Do-8 + Do-210S
7	Do-10
8	Do-10 + Do-210S
9	Vi-54 + Do-210S
10	Do-44 Single
11	Do-44 Stereo
12	Do-44 + Do-210S
13	D0-53

Reline

21	Re-8
22	Re-8 + Re-112S
23	Re-12
24	Re-12 + Re-115S
25	Re-12 + Re-118S
26	Re-15
27	Re-15 + Re-115S
28	Re-15 + Re-118S
29	Re-10
30	Re-10 + Re-112S
31	Re-10 + Re-115S

Soline

18	So-1101 + Do-80S

Faline

36	Fa.12 + Fa-118S

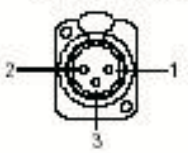
This VDC-1 processor is configured in memory 1 (DO-2).

In the factory configuration, the Binary switch is unblocked.

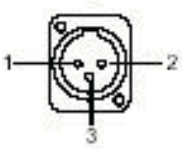
5.- CONNECTORS AND CONNECTIONS

Connectors and connections

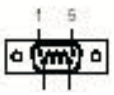
XLR BASE CONNECTORS



INPUTS
1.- GROUND
2.- LIVE (+)
3.- LIVE (-)



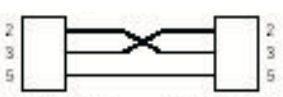
OUTPUTS
1.- GROUND
2.- LIVE (+)
3.- LIVE (-)



9-Pin male SUB-D CONNECTOR
(PC - User Interface Connection)

Pin 1: n.c
Pin 2: RxD Received Data
Pin 3: TxD Transmitted Data
Pin 4: n.c
Pin 5: Ground
Pin 6: n.c
Pin 7: n.c
Pin 8: n.c
Pin 9: n.c

PC CONNECTION CABLE - DAC 2300/DAC 2600
(Supplied)

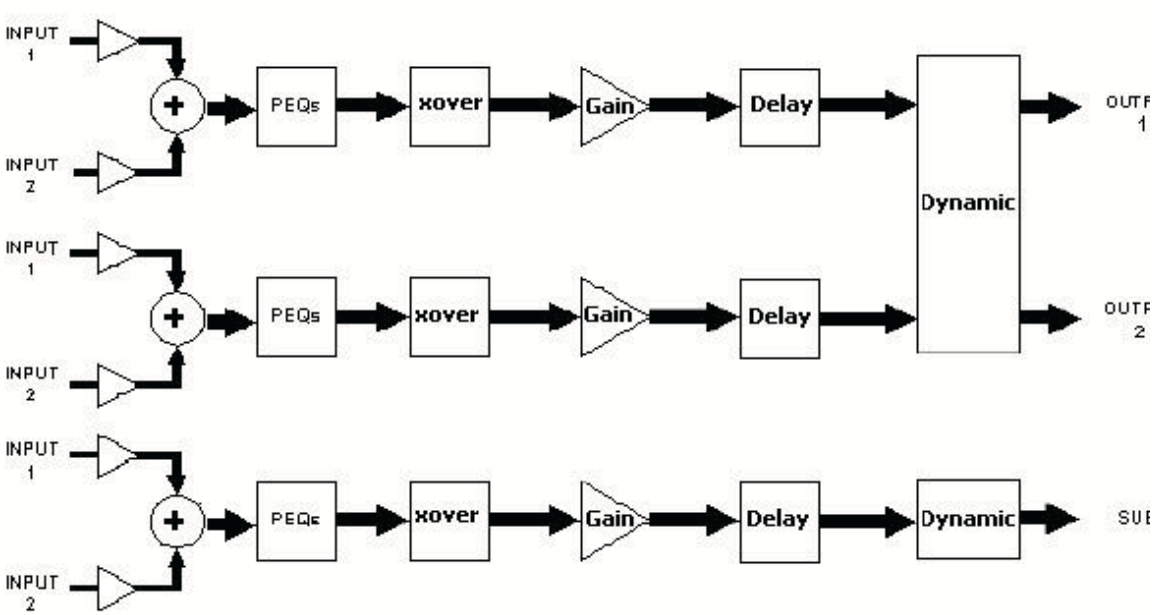


9-Pin SUB-D FEMALE (PC)

9-Pin SUB-D FEMALE (RS-232 IN)

6.- FEATURES

6.1.- Block chart



6.2.- Technical Specifications

Analogue Input

Impedance:	32K balanced ohms
AD converter:	24 bit-96 Khz, 256 x Oversampling
Dynamic range:	105 dB
Maximum level:	+15 balanced dB

Radio frequency filter to avoid interference

Outputs

Impedance:	50 ohms
DA converter:	24 bit 40 Khz, 256 x Oversampling
Dynamic range:	112 dB
Output level:	+18 balanced dB

THD:	<0.002%
Frequency response:	10 Hz - 24000 Hz
Processing:	1 floating point DSP with 48-bit internal resolution and dual precision
Data memory:	FLASH memory to store 60 available configurations. Total data memory: 128 Kbytes
Power supply:	Switched power supply. Accepts 84 to 264 input volts, 50-400 Hz. Fuse holder included in IEC power supply connector with 1 Amp fuse.
Consumption:	12W
Interface Connection:	USB and RS-232C

6.3.- Mechanical specifications:

Finish:	Chassis: 1.5-mm iron painted black. Case: 4-mm anodised aluminium
Environment:	Working temperature: 0° to 50° C (32° to 122° F) Storage temperature: from -30° to 70° (-22° to 167° F) Max humidity. 90%
Measurements:	482 x 45 x 226 mm.
Weight:	3 Kg.

7.- INSTALLATION AND START-UP

7.1.- Installing the VDC-1

Before you install the VDC-1 software, check that your computer meets the following set of minimum requirements:

Pentium II 256 Mhz or equivalent
16 Mb RAM memory
10 Mb available hard disk space.
A USB connection or available COM port. (9-pin Sub-D connector)
WindowsTM 95/98/NT/2000/Me/XP operating system.

If your computer meets or surpasses these requirements, the software will install and work properly. To install your copy of the program, please follow these instructions.

Before you start installation, you are advised to shut down all running applications. Insert the CD supplied with the VDC-1 into your computer's CD-ROM drive.

On the START menu, select RUN… In the run window that appears, type the following in the "Open" space: D:\ VDC-1\Setup.exe and press OK. After a few seconds the software installation program will start up. Follow the on-screen instructions.

7.2.- Start-up

The installation program creates an entry in the list of programs on the Windows START menu called VDC-1 2.0.
To start the program running, on the START menu select PROGRAMS and locate VDC-1 2.0. Click on the program icon. If you have created a direct access from the Windows desktop, simply double click on the shortcut:

After the application has been launched, you will be asked for the port in which the VDC-1 is connected.

Four choices are given:

Work offline
With the processor connected to USB
With the processor connected to COM1.
With the processor connected to COM2.

If you want to work with the processor connected to the computer to configure it, take the USB or serial cable and connect one end to the appropriate port (USB, COM1 or COM2) and the other to the front of the VDC-1. The USB and serial cables should not be connected at the same time. In this case, the USB will have priority and you will not be able to connect via COM.

Once USB, COM1 or COM2 have been selected, connection with the VDC-1 will be established and the connecting screen will appear. If proper connection is established this screen will disappear immediately and the program's main screen will appear.
If there are any problems with the connection an error message will be displayed.
This message states that it has not been possible to connect with the VDC-1. In this case, make sure that you are not trying to connect via the serial port with the USB connected or that the wrong port has not been selected or is not already being used. Connection will also be impossible if the processor is not at its main screen.

If connection is established, the main screen of the VDC-1 appears and displays the processing diagram.

7.3.- Uninstalling

To uninstall the VDC-1 follow the same procedure as for any program. On the control panel go to Add or Remove Programs. Select VDC-1 and click Add or Remove.

You are advised to back up all the configuration files created (with the extension VDC-1) to be able to reuse them later on.

8.- EDITION WITH VDC-1

Once at the main screen, establish connection with the VDC-1 by clicking READ. You will be given the memory and the preset name, as well as the position of the preset limiters for OUT 1-2 and OUT sub. If the gain stages are not the same as the preset value i.e. 32 dB,
proceed as follows:

1 If you do not want the Dynamics function, click Bypass and then WRITE to send the command to the VDC-1. The Dynamics function will be disabled. If you want to restore this function, repeat the above steps.

2 If there are stages with a different gain to the preset value, click Box Parameters and the information window will be displayed:

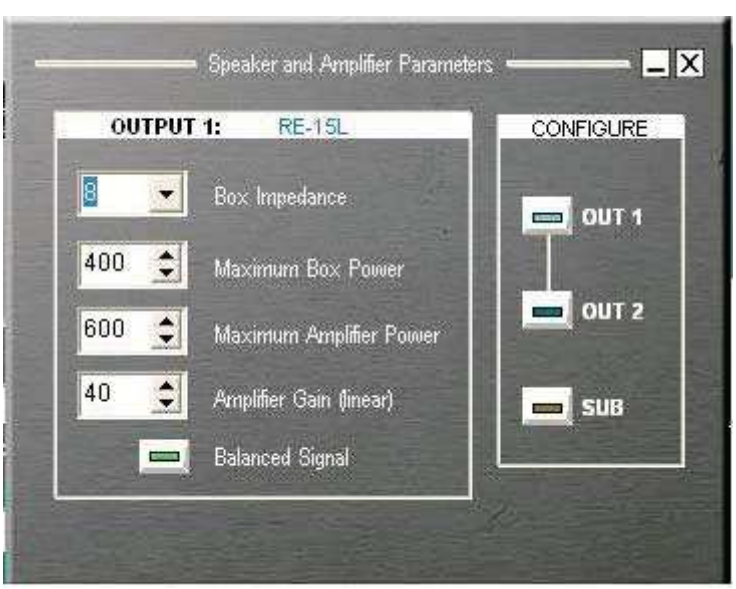
Box Impedance: Box or speaker impedance at this output. 2, 2.67, 4, 8, and 16 ohms.
Maximum Box Power: Maximum RMS power of the box or speaker connected at the output. From 5 to 4000 watts.
Maximum Amplifier Power: Maximum amplifier output power per channel. From 50 to 4000 watts.
Amplifier Gain (linear): Linear amplifier gain. If this is given in G-dB decibels, change it to linear gain by using the following formula: G=10Y(GdB/20). The range of variation is from 5 to 2000. This data is necessary to know the RMS power that needs to supplied to the box.

Conversion table from dB gain to linear gain.

-dB	Linear.
26	20
27	23
28	25
29	28
30	32
31	35.5
32	40
33	45
34	50
35	56
36	63
37	71
38	80

Balanced Signal: Enable the box whenever the signal used is balanced. Make sure of this since a balanced signal increases the output power.

This window guides you though adjusting the limiters according to the amplifiers used at the processor outputs.



Along with all this information, the **Dynamics** screen will display the maximum RMS output power that will be supplied at the output according to the maximum output signal level of the VDC-1, amplifier gain, box impedance and type of signal used (balanced or not). This will be shown as: **Maximum RMS Out Power: X Watts** and the balanced output RMS voltage of the **VDC-1: VDC Max Out Voltage:x.xx vrms.**