

# Dual Vintage Overdrive



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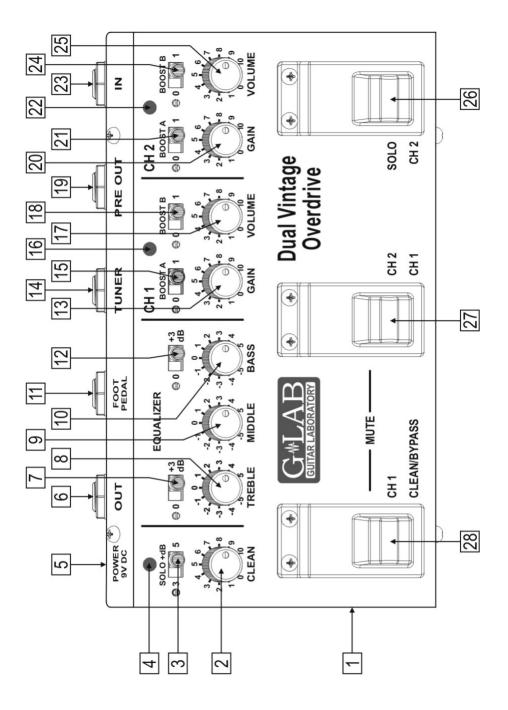
Dear Customer!

Thank you for choosing our product.

Dual Vintage Overdrive (G LAB DVO) is the overdrive type stomp box effect with two overdriven channels (independent setting of gain, overdrive type and volume), SOLO volume boosting function and CLEAN tone. DVO can work as a stomp box connected between a guitar and an amp or as the pre-amp – connected between a guitar and the power amp.

Basic characteristics:

- classical guitar tube pre-amp emulated by selected FET transistors,
- passive equalizer: TREBLE, MIDDLE, BASS with typical tube amp characteristics,
- two overdriven channels (CH 1, CH 2) with gain control (GAIN), boosting and characteristics settable by BOOST A and BOOST B switches, volume control (VOLUME), enabling to perform from almost clean tone, through crunch one up to full overdrive,
- SOLO function with adjustable +3 dB or +5 dB boost,
- four working modes of footswitches (set by DIP switches),
- clean tone with volume control (CLEAN),
- independent guitar electronic tuner output (TUNER) with MUTE function,
- PRE OUT output with buffered direct signal from a guitar,
- FOOT PEDAL input for controlling by the G LAB GSC controller or by a footswitch,
- possibility working in the parallel mode with amp channels and overdriven channels (CH 1 or CH 2 of DVO), connected directly to a power amp (skipping pre-amp),
- TREBLE and BASS boost switches post overdriving,
- backlighted footswitches,
- 9V DC power supply.



- 1 DIP switches
- 2 CLEAN tone volume control
- 3 SOLO boosting mode switch
- 4 1st and 2nd mode SOLO mode indicator (full volume),
  3rd mode clean tone indicator (CLEAN),
  4th mode bypass mode indicator
- 5 9V DC power supply socket
- 6 Amp output (OUT)
- 7 + 3dB TREBLE boosting (post overdriving)
- 8 TREBLE control (pre overdriving)
- 9 MIDDLE control (pre overdriving)
- 10 BASS control (pre overdriving)
- 11 FOOT PEDAL input
- 12 + 3dB BASS boosting (post overdriving)
- 13 First channel (CH1) GAIN control
- 14 TUNER output
- 15 First channel (CH1) boost switch (BOOST A)
- 16 First channel (CH1) indicator
- 17 First channel (CH1) VOLUME control
- 18 First channel (CH1) boost switch (BOOST B)
- 19 Guitar direct signal output (PRE OUT)
- 20 Second channel (CH2) GAIN control
- 21 Second channel (CH2) boost switch (BOOST A)
- 22 Second channel (CH2) indicator
- 23 Guitar signal input (IN)
- 24 Second channel (CH2) boost switch (BOOST B)
- 25 Second channel (CH2) VOLUME control
- 26 Right footswitch
- 27 Central footswitch
- 28 Left footswitch

#### **Power supply**

DVO should be supplied from external regulated 9V (from 8.7V up to 9.6V) DC power supply, with 80 mA output or more. Before connecting please check if the connector's polarisation is proper. DVO is protected against opposite polarity and overvoltage.

#### Mode of working selection

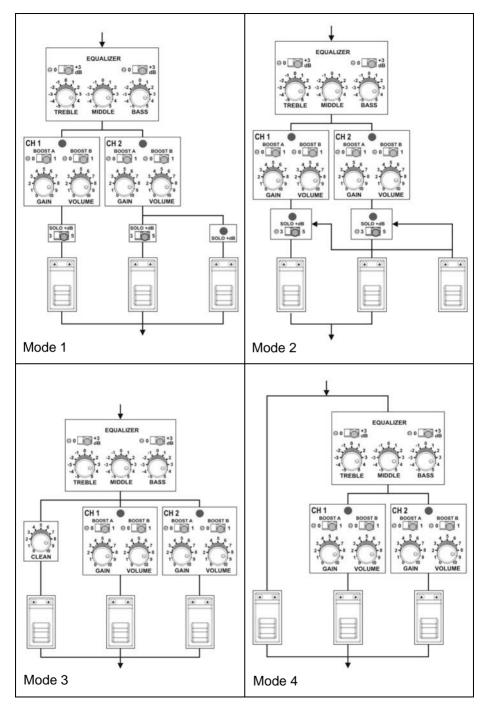
In the below table are given footswitches functions in four modes of working. Mode of working selection is done by No.1 and No.2 DIP switches located on the left-hand side of the casing.

Mode	DIP switch position	Left switch	Central switch	Right switch
1		CH 1*	CH 2*	SOLO (CH 2 with full volume)
2		CH 1*	CH 2*	SOLO (active channel volume change from lowered to full - or reverse)
3		CLEAN tone	CH 1 with full volume	CH 2 with full volume
4		BYPASS mode	CH 1 with full volume	CH 2 with full volume

\* - with volume -3 dB or -5 dB set by SOLO switch

DIP switch lower position is ON.

Operations of particular modes of working are graphically presented in the next page table.

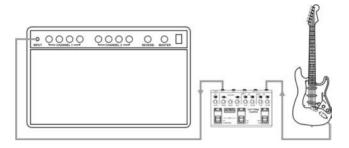


## Connecting to a guitar amp

The way of connecting DVO to a guitar amp, an amp type and an amp controls adjustment affect to a high degree of the final tone effect.

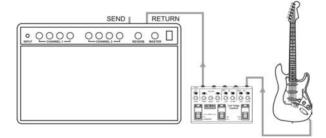
#### Connecting to the amp guitar input

In such case it is recommended to switch on clean amp channel and to set flat tone characteristics.



This way of DVO connecting makes that overdriven tone is highly dependent on an amp tone setting.

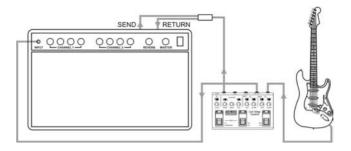
Connecting to the amp effects loop input



When the amp is equipped with the serial effect loop (LOOP), it is recommended to connect OUT output to RETURN effects loop input. In such case the tone is depending only on amp PRESENCE control if available. Correction of the tone can be done post overdriving by +3dB BASS and TREBLE boost switches. If such connected DVO allows to get a good overdriven ton, you should use parallel connection to the pre-amp (see below).

## Parallel connection to the amp

The connection with the amp is done by two circuits.



PRE OUT output signal is connected to the amp guitar input.

Output (OUT) signal from DVO should be connected to the amp effects loop using Switching cable for DVO (product code 00804, ordered separately).

REMARK: In case of connecting Switching cable for DVO, it is required to connect PRE OUT output to the amp INPUT by the Jack/Jack cable (this cable assures proper grounding). DVO should be switched to No. 4 mode of working and for work with Switching cable for DVO (No.3 DIP switch position should be ON).

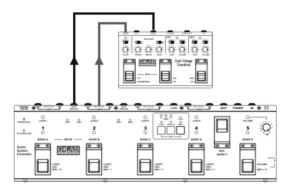
DIP switch position	Connection to an amp	
	Without " Switching Cable for DVO"	
ON	Using " Switching Cable for DVO"	

In this case switching on the first CH1 channel or the second CH2 one will affect in connecting DVO output directly to the RETURN input of the effects loop (directly to the power amp skipping pre-amp section). Independence of amp tones from the overdriven DVO channels is the advantage of such solution. Tones from the DVO are independent from amp tone settings (except of PRESENCE control if available).

# Silent tuning function (MUTE)

Electronic tuner should be connected to the TUNER output. To MUTE press at the same time left and central footswitches. All indicators will start to blink. To exit MUTE function should be pressed any footswitch again. The guitar signal is active all the time at TUNER output.

## Connection to the Guitar System Controller G LAB GSC



DVO can be controlled by a typical latching type output two-switch foot pedal connected to the FOOT PEDAL input.

Connecting the FOOT PEDAL input and SW1&2 (or SW3&4) output of the GSC controller by a Jack/Jack stereo cable enables to control DVO functions according to the below table.

Mode	Switch	Indicator is not lit	Indicator is lit
1 i 2	SW1 (or SW3)	CH 1	CH 2
	SW2 (or SW4)	Lowered volume	Full volume
3	SW1 (or SW3)	CLEAN tone	CH 1 or CH 2
	SW2 (or SW4)	CH 1	CH 2
4	SW1 (or SW3)	BYPASS	CH 1 or CH 2
	SW2 (or SW4)	CH 1	CH 2

Considering the signal path, DVO can be connected between a guitar and GSC (all effects connected to GSC will be placed post this overdrive), or between GSC and an amp (all effects connected to GSC will be placed pre this overdrive), or to the one of GSC loop (DVO can be bypassed and some effects can be placed pre and some of them post this overdrive).

# **Rules of overdriving**

Overdriven tone is one of the basic tone used by guitar players for playing different kinds of music.

Slightly overdriven tone is the common used guitar sound. To get slightly overdriven preset the BOOST A and BOOST B switches should be set to zero and the GAIN control should be set to minimum. Equalizer controls should be set at the central position (to "0" value). Tone testing should be done at the medium volume. Guitar volume controls should be set to maximum. Playing the guitar, test tone by increasing the GAIN. At some position of the GAIN knob there will appear the effect of "cutting" sounds with higher amplitude and later, the effect of adding harmonics to the tone what is the overdrive effect. It can be clearly heard by programming for example: less GAIN on the CH 1 than on the CH 2 and more VOLUME on the CH 1 than on the CH 2 (BOOST A and BOOST B switches on both channels should be set identically) and during songs played these two channels should be switched. In case of guitars with low signal converters (e.g. single type) this test may require switching on BOOST A or BOOST B switches.

To get well-defined overdriven tone, one of the active channel BOOST switches should be switched on. BOOST A and BOOST B offer different overdriving characteristics. BOOST A supply the tone with more middle and treble and BOOST B with more bass. To get more bass slightly overdriven tone only BOOST B should be switched on and GAIN should be lowered to the required level.

Then can be tested what is the influence of equalizer controls onto the tone. You should realize that BASS and TREBLE boosting switches (+3dB) are operating on the overdriven signal. Switching them on produce different effect than using BASS and TREBLE controls. For typical guitars with humbacker pickups the best results give setting TREBLE control at -3 dB to 0 dB and setting on +3 dB TREBLE switch at the same time.

The main factor determining overdriven tone is a frequency characteristics of amplifying elements between DVO and a speaker, as well as a speaker alone (understood here as a speaker or a set of speakers in a cabinet). If DVO is

connected to the amp clean channel input, it is recommended to set tone controls of this channel in the following way: BASS to maximum, MIDDLE at the centre, TREBLE almost to minimum. If DVO is connected to RETURN input of effects loop then controlling of tone at an amp is limited only to PRESENCE control (if available).

The element determining tone is a speaker or are speakers (or rather speaker/speakers model), their quantity, capacity and type of the cabinet. The largest manufacturers of guitar speakers obtain in their offer wide range of guitar speakers models. Specially are easily identified speakers differences for overdriven tones because they obtain a lot of harmonics which played lauder or more silently make reasonable tone difference. As higher quantity of speakers as better performance of bass (even at the same amp power). DVO was designed for working with speakers models usually used in the high quality amps. The BASS +3dB boost switch allows to increase bass level to the required one. It is recommended to switch on this boost switch and eventual excess of bass correct by BASS control.

## Some tips from G LAB web site: www.glab.com.pl

#### Too much bass at a neck pickup

Typical problem of many guitars equipped with humbackers is too high level of bass from a neck pickup comparing with a bridge pickup. If a guitar is connected to DVO or G LAB GSC it is recommended to correct this guitar electronic circuit (see the diagram at <u>www.glab.com.pl</u>).

#### Treble disappearing while lowering a volume

Many guitars (with two volume pots) are equipped with an electronic circuit enabling them to mix in any proportion signals from pickups (even lowering to zero the volume of one of the pickup do not mute the guitar). Such a circuit cuts treble while the guitar volume is lowered (as much cut as longer is the guitar cable) and changes the guitar tone when its volume is reasonably lowered (the resistance of the pot "short circuit" the pickup). To solve this problem it is recommended to modify the circuit according to the diagram at <u>www.glab.com.pl</u>. If after performing this step the effect of cutting treble still exists, then the reason can be long guitar cable (e.g. 10 meters) or high parasitic capacitance of this cable (over 1000pF).

#### **EMC/EMI & Certificate of conformity**

#### EMC/EMI

This device has been designed and manufactured to conform with directives and standards in the field of safety operations and electromagnetic interference.

This device uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However in spite of performing below standards there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception which can be determined by turning the device on and off, the user is encouraged to try to correct the interference by one or more of the following operations:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Contact with the manufacturer.
- Consult the dealer for help.

## **Declaration of Conformity**

ELZAB S.A., ul. Kruczkowskiego 39, 41-813 Zabrze, Poland, declare under sole responsibility, that the following product:

# Dual Vintage Overdrive (G LAB DVO)

conforms with requirements of the EC Council Directives:

- 2006/95/EEC Low Voltage Directive,
- 2004/108/EEC Electromagnetic Compatibility,

and holds CE mark. Above named product conforms with the following standards:

- PN-EN 60065:2004 /EN 60065:2002/ Audio, video and similar apparatus -Safety requirements.
- PN-EN 55103-1:2000 /EN 55103-1:1996/ Electromagnetic compatibility -Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 1: Emission
- PN-EN 55103-2:2001 /EN 55103-2:1996/ Electromagnetic compatibility -Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 2: Immunity

#### Jerzy Biernat

President of the ELZAB S.A. Board of Directors

Copy of original EC declaration of conformity is available for download on our webside <a href="http://www.glab.com.pl">http://www.glab.com.pl</a>



# DO NOT PLACE THIS PRODUCT INTO THE WASTE CONTAINER !

This device is marked with a cross-lined waste container symbol according to 2002/96/EU Directive on Waste Electric and Electronic Equipment.

Such marking informs that after usage equipment can not be trashed together with other household waste.

An user obligation is to return wasted equipment to a party collecting wasted electric and electronic equipment. Parties collecting such equipment organise a system, including local collection points, shops and other units, allowing to return such equipment. This Directive assures an user free of charge utilisation of such delivered equipment.

This device is made of materials which can be recycled or utilised after becoming out of use. Proper handling of wasted electric and electronic equipment reduce demand for row materials and contribute in avoiding harmful consequences for environment and health of people caused by dangerous components and not proper storing and utilising of such equipment.



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