

**Darkglass Electronics**

*Your vision, our gear.*

OWNER'S MANUAL

2018 ended up as the most important year in Darkglass history. With groundbreaking new products, renewed classic releases, and limited-edition pedals, our product catalog grew stronger than ever and we took more steps in the direction we've always strive for: making the best gear for musicians all over the world.

Developing new products is often a long and challenging process, full of surprises and hard-learned lessons. We have learned and improved tremendously since the release of our first amplifier, and now we have the pleasure of starting 2019 with a completely redesigned version of our Microtubes 900. Boasting of enhanced durability, more flexible equalizer, studio-grade compression, impulse response cabinet emulation, and even MIDI control, the Microtubes 900 v2 features all the features and power the modern, professional bassist needs in the same compact, gorgeous format.

# DESCRIPTION

The Microtubes 900 v2 is a 900W amplifier equipped with an all analog preamplifier, Class D Power Module and a digital impulse response cabinet emulator for DI outputs or headphones.

Probably the first thing you will notice from the Microtubes 900 is its unusual control layout: On the right side you'll find the clean section which is the foundation of your sound.

It features Gain and Master volumes and active 6 band EQ. Along with the mandatory Low and Treble controls you will find 250Hz, 500Hz, 1.5KHz, 3KHz sliders. Character is all in the midrange, by having 4 dedicated Mid controls allow you to cover the whole mid range (250Hz to 3kHz) you have total control and flexibility over the amplifier's character.

On the left side, by the Input jack you will find the Microtubes® Engine which acts as an extra channel that can bring your crisp clean sound to the next level by helping you cut through any mix while adding anything from subtle tube break up, harmonics and natural compression to obliterating distortion.

The Microtubes Engine can be engaged via the front panel or via our own digitally controlled (jack on rear panel). Besides engaging the Microtubes circuitry you can hold the actuator to Mute the amplifier.

The Intelligent Footswitch is housed in an elegant, laser engraved unibody chassis and requires a standard ¼" mono cable (not included) for it's full operation.

Besides this incredible versatile preamplifier, we equipped the power module with some unique control over the power output and minimum speaker loads:

The standard mode will deliver 900W RMS at 4Ω/500W at 8Ω. If you select the 2Ω Mode via the rear panel switch the amplifier will deliver 900W at 2Ω/500W at 4Ω and 350W at 8Ω.

This deceptively simple feature allows for maximum power adaptability: It doesn't matter the cabinet configuration or power requirements, the Microtubes 900 will deliver accordingly.

# FEATURES

## FRONT PANEL



**INPUT** : Use this jack to connect your instrument via a standard ¼" mono cable.

**PASSIVE/ACTIVE** : Use this push-button switch to change from passive to active mode. If your bass is active it can have a hotter signal making the amp to distort early (feel free to use if such additional distortion is desired).

**MICROTUBES**: Use this push button to turn on or off the Microtubes Engine to add natural compression, organic harmonic enhancement, and saturation ranging from mild overdrive to high gain bass range.

The Microtubes Engine operates before the clean section (you can therefore use the 4 Band Active EQ for additional tone shaping in addition to the Tone knob described below).

**COMPRESSION:** This knob controls the amount of dynamic compression added to the Microtubes Engine.

The make up gain is adjusted automatically. The compression can be turned off or assigned using the Darkglass Suite.

**DRIVE :** This knob controls the amount of distortion that the Microtubes Engine will deliver. It will change from a soft warm overdrive to a massive modern distortion sound.

**STONE :** This knob controls the high harmonic content of the Microtubes Engine via a variable low pass filter: crank it up for additional attack and definition or dim it down for a smoother sound, especially handy if already running bright clean EQ settings or cabinets with tweeters.

**LEVEL :** Use this knob to control Microtubes Engine's output volume.

**BLEND :** Use this knob to mix between the Clean signal and the Distortion signal (Microtubes Engine).

**B3K/VMT :** This push-button switch selects between two overdrive voicings: B3K® mode will deliver an

aggressive, percussive sound while the VMT will bring up the mids for a warmer, more neutral character.

**GAIN :** Use this knob to change the volume of the signal before the Active 4 Band EQ. You can set it low for ensuring the cleanest operation possible or set it higher for more aggressive growl.

**BASS :** +-12dB at 80Hz. Use this knob to change the low content of the signal.

**MIDS:** +-12dB at 250, 500, 1.5K and 3KHz. This graphic eq control the mid content of the signal.

**TREBLE :** +-12dB at 5kHz. Use this knob to change the high content of the signal.

**MASTER :** Use this knob to control the overall volume of the amplifier.

**MUTE :** Use this push button to mute the amplifier.

# FEATURES

## REAR PANEL



**SPEAKER OUTPUT** : Use this connector to connect the amplifier to your cabinet. This Speakon combo jack allows for either Speakon or ¼" speaker cable operation. The outputs are connected in parallel.

**WARNING: Do not use an instrument cable with this jack. Using an instrument cable can damage your amplifier.**

**4Ω / 2Ω** : Press this switch when using a 2Ω load. You can use this control to lower the output if your 4Ω cabinet is not able handle more than 500W (you can also get 350W with an 8Ω cabinet in this configuration).

**SEND** : Use this output to send the signal to effects pedals.

**RETURN** : Use this input to receive the signal from effects pedals. Master volume control is after this input.

**GROUND LIFT** : Use this control to lift the ground of the DI XLR output. If you are experiencing ground noise in your DI signal try changing the setting of this control.

**PRE DI OUTPUT**: Use this output to send a balanced copy of your input signal to recording equipment, mixer, etc. The output is latency compensated to match with the Post DI Output.

**POST DI OUTPUT**: The signal for this output is taken after the distortion, EQ and effects loop, and processed through the cabinet simulation engine. The output is latency compensated with the Pre DI Output, and not affected by the master volume.

**USB**: The USB connector allows you to connect the amplifier to Darkglass Suite (PC/Mac, [www.darkglass.com/suite](http://www.darkglass.com/suite)). Darkglass Suite offers firmware updates, a selection of cabinet impulse responses, and allows you to control various parameters on the amplifier, such as enabling the compressor for specific channels, MIDI settings, etc.

**HEADPHONE OUTPUT:** Connect your Headphones and enjoy the impulse based cabinet emulation.

**HEADPHONE VOLUME:** This knob controls the volume of the headphone output.

**AUX IN:** Use this connector to provide to the Headphone output music from your laptop, cellphone, mp3 player, etc.

**CABINET SELECT:** Use this switch to navigate between the 3 different cabinet impulses or the raw sound of your amp.

**MIDI:** The MIDI input allows you to control the following settings with any MIDI standard controller: Channel, Mute, Impulse slot, Compressor on/off. Settings can be controlled with Control and Parameter Changes.

**FOOTSWITCH :** The Intelligent Footswitch is proprietary digitally controlled device that allows you to remotely engage and disengage the Microtubes Engine. You can also hold the footswitch to Mute the amplifier. The VMT/B3K® push button will remain operational with the Intelligent Footswitch plugged in.

· **You can use a regular mono instrument cable to connect the amplifier to the footswitch.**

· **You must remove the cable from the footswitch jack in the rear panel if you want to control the amp from the front panel.**

· **Fully backward compatible with all Darkglass Intelligent Footswitch and Super Intelligent Footswitch products.**

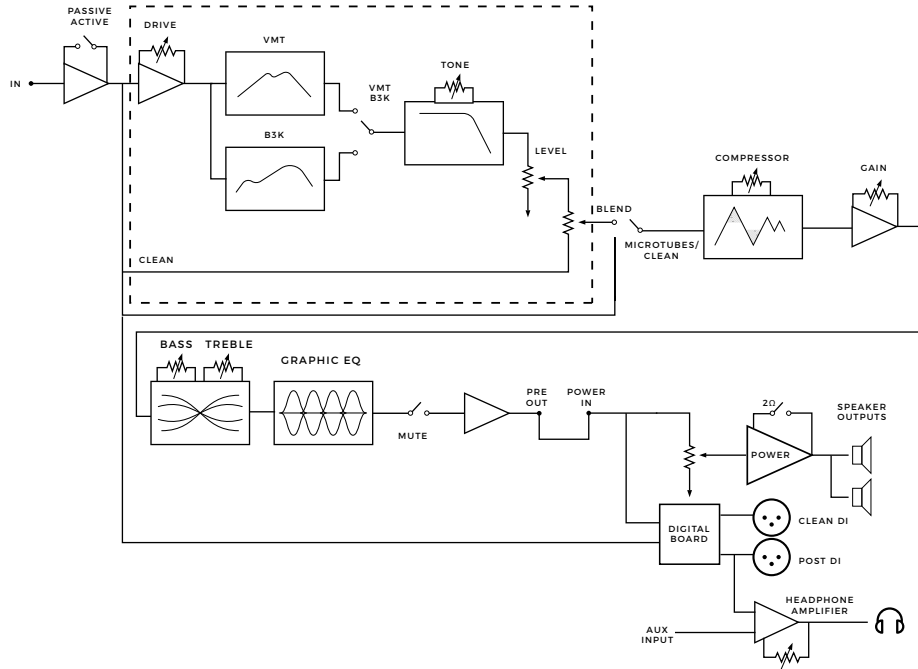
**FAN :** The fan forces air inside the amp to help the heatsink system cool the amp. The fan will speed up when the temperature rise to help cooling the system more efficiently while keeping the noise at minimum. Be sure to never cover the vent holes.

**AC SOCKET :** Use this connector to feed electric power to the amplifier. 100 - 230 VAC, 50Hz-60.

**AC POWER ON/OFF :** Use this Switch to release the audio energy from your bass.



# BLOCK DIAGRAM



# WARRANTY AND SPECS

## WARRANTY

Please register for your warranty at <http://mypedal.darkglass.com>. The Microtubes 900 is under warranty to the original owner for a period of three years against manufacturing defects in the country where the product was originally purchased.

If you experience a problem with the unit, please contact [support@darkglass.com](mailto:support@darkglass.com) to receive a Return Authorization number or for information on the nearest authorized repair center. A copy of your original receipt must be included with all warranty repairs. You are responsible for all shipping charges. The unit must be shipped to us freight prepaid. We will return the unit freight collect.

Darkglass Electronics Oy is not responsible for shipping damage either to or from our service center. Claims must be filed with the carrier. For repairs please contact your local dealer or distributor for your country's specific warranty period and repair procedures. Darkglass®, Microtubes®, and Microtubes Engine are registered trademarks of Darkglass Electronics OY.

## SPECIFICATIONS

Input Impedance:  $1M\Omega$   
Minimum Load Impedance:  $4\Omega$  ( $2\Omega$  in  $2\Omega$  mode)  
Maximum Power Output: 900 Watts RMS @  $4\Omega$  (1kHz full blast 2 min max) 20%THD  
450 Watts RMS @  $8\Omega$   
Power Amp Input Impedance:  $1M\Omega$   
Power Amp Input Level: 1500 mV RMS 1200mV RMS at  $2\Omega$  mode  
Pre-Amp Output Impedance:  $1k\Omega$   
Pre-Amp Output Level: 1200 mV

Maximum Power Consumption: approx. 700VA  
Forced-air cooled  
AC Input Power: 100-250 VAC (Via selector switch on left side panel).  
Cycles: 50/60 Hz  
Dimensions: 26.7cm l x 7cm h 25.5 w (10.5"l x 2.75"h x 10"w)  
Weight: 2.9Kg (6.39Lbs)  
Built and Engineered in Helsinki, Finland.  
(00358) 504 757005

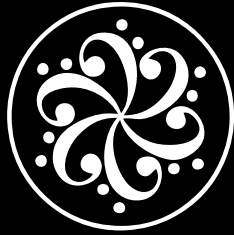
# WARNING

- No user serviceable parts inside the amplifier. Do not open the amp.
- Never use the amp at a high moisture environment or near liquids.
- The Microtubes 900 can deliver more than 115 dB of power. Exposure to this level of sound can damage your hearing. Use proper hearing protection if you will be exposed.
- The Microtubes 900 can deliver more than 900 Watts. Be sure that your speaker cabinet is able to deliver that power. You can reduce the output of the amp by selecting the  $2\Omega$  mode on the rear panel (by the SpeakON output jack).
- Do not cover the vent holes. The Fan and vent holes are part of the cooling system of the amp. Covering the vent holes can damage the power amp by overheating it.

- Don't use an instrument cable as speaker cable. An instrument cable is not designed to deliver the type of power signals sent from the amplifier to the speaker.

## TROUBLESHOOTING

- The button controls do not react: check if the footswitch is connected. If you do not want to use the footswitch, you have to unplug the cable from the rear back of the amp.
- The amp does not turn on: check if the power cable is connected and if you have power on the wall.
- The sound is low: check your speaker cable. Never use instrument cable.
- The sound is distorted or too high: check if the passive active switch match your bass.



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