



Fredenstein
Professional Audio

V.A.S.
MIC-PRE

Operating Manual

Fredenstein V.A.S. Microphone Preamplifier

The V.A.S. Microphone Preamplifier is a single channel stand-alone device. The V.A.S. MicPre features top of the line performance, key component to achieve this performance level is our new OPA2 discrete audio operational amplifier. As all Fredenstein products, it is not a copy of an older design, but a completely new circuitry manufactured in SMT technology. Matched and integrated dual input transistors guarantee vastly improved specifications compared to older designs. The OPA2, following the tradition of well known manufactures, is socketed and can be exchanged without tools. The industry standard pin-out makes it compatible with many manufactures. Another very important sound shaping component is the American-made steel-core output transformer, which has this smooth vintage sound without being dark or just “mid-rangy” and at the same time, the V.A.S. MicPre is very quiet.

A 100K Ohms high impedance direct input is located on the front-panel, it accepts balanced and unbalanced signals, the rear microphone input is automatically disconnected when a plug is inserted in the DI connector.

The features include a maximum gain of 65 dB, Output-Level Control, a 20 dB Pad, switchable polarity, selectable input impedance, switchable Low-Cut filter, and Phantom-Power support. Our new eight LED Peak-Meter with a 50 dB range gives the user a precise reading of the operating conditions. For added versatility, a hybrid headphone amplifier with separate volume control is integrated to allow precise monitoring.

The balanced input and the balanced output are available on XLR and TRS connectors. An unbalanced insert is also provided to connect effect equipment.

With the optional rack mount kit, two V.A.S. devices can be mounted together to form a 19 inch 1U enclosure (table feet need to be removed).

For easy touring and recording around the world, the V.A.S. MicPre has a built-in universal power supply ranging from 90VAC to 240VAC, 50 -60 Hz.

As all Fredenstein products, the V.A.S. MicPre is designed by a German-American team and manufactured in Taiwan.

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Installation:

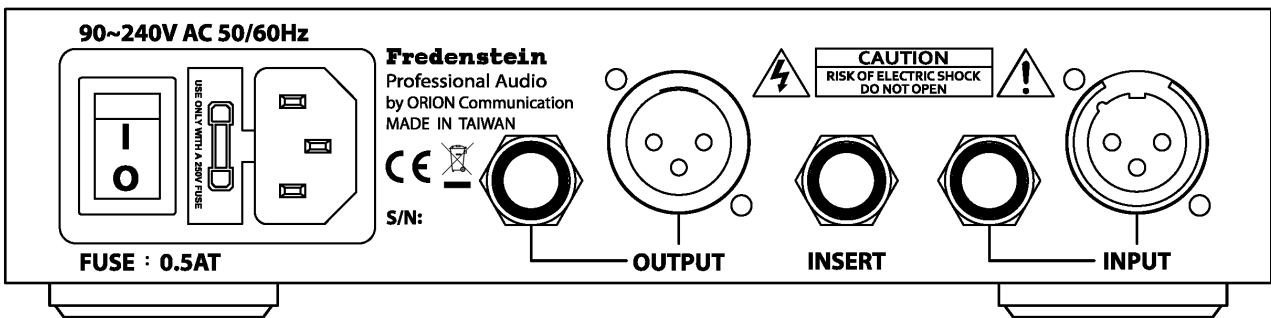
Electrical Safety Warnings:

Do not open the enclosure, hazardous voltages are present inside!

There are no user serviceable parts inside.

If you need to replace the mains fuse, make sure the replacement has the same rating (0.5AT 250V).

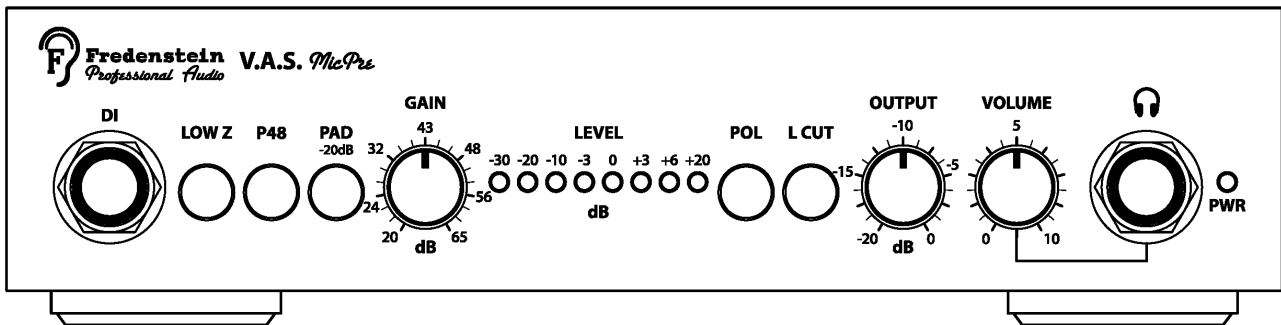
Rear View:



Please connect your microphone input and the output first to the XLR or TRS connectors located on the back panel. Connect the mains cable to the V.A.S. MicPre and then to a grounded mains outlet. The power ON/OFF switch is located on the back panel near the power cable connector (IEC). After the unit is powered on, the PWR indicator on the front panel will be illuminated. An unbalanced insert is also provided on the back-panel to connect effect equipment.

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Front View:



Indicators:

Output Level Indicator	:	-30 dB to +20 dB 0dB = +4dBu
PWR	:	Power indicator

Rotary Control:

GAIN	:	Gain Control, minimum +15 dB maximum +65 dB
OUTPUT:	:	Output-Level control, minimum -20 dB maximum +20 dB
VOLUME:	:	Headphone volume control

Switches:

LOW Z	:	300 Ohm Input Impedance when lit
P48	:	+48 Volt Phantom Power when lit
PAD	:	-20 dB Input Attenuator when lit
POL	:	Reverse Output Polarity when lit
L CUT	:	60 Hz Low Cut Filter when lit

Connectors:

DI	:	TRS high impedance balanced or unbalanced Input
Phones	:	TRS standard Headphone connector (6.35 mm - ¼ inch)

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Detailed Description:

DI – Direct Input:

The most common use for the DI input is to connect instruments like guitars directly to the V.A.S. Pre. The input impedance is greater than 100K Ohms to insure compatibility with most instrument pickups. After inserting a balanced (Tip-Ring-Sleeve) or an unbalanced (Tip-Sleeve) plug, the balanced microphone input on the back-panel is automatically disabled.

Low Z – Low Inout Impedance:

When lit (green), the input impedance changes from 1500 Ohms to 300 Ohms. Some dynamic- and ribbon-microphones only work linear on a low input impedance.

P48 Phantom Power:

Most FET condenser microphones as well as some other microphones with built-in amplifiers require +48V Phantom Power. Pushing the P48 switch (red light) enables +48V through the balanced microphone line. Please check your microphone documentation if you are not 100% sure. Enabling P48 on microphones not designed for P48 might cause severe damage to the microphone. The DI input is not supplied with Phantom Power.

PAD – Input Attenuator:

Setting the PAD switch (orange light) activates a 20dB attenuator at the input allowing line level signals to pass through the preamplifier (note: Pad is not affecting the DI input)

Gain Control:

Microphone Preamplifier Gain Control, minimum +20dB, maximum +65 dB. Affects both output-level and headphone volume.

POL – Polarity Control:

Pushing the POL switch selects the polarity, when lit (blue), the output polarity is reversed. Otherwise the true, non-reversed, polarity is selected (normal operation).

L CUT – Low Cut Filter:

Pushing the L CUT switch activates the 60 Hz low cut filter when lit (orange), otherwise the full bandwidth is applied.

OUTPUT – Output-Level Control:

In normal operation the control should be fully clockwise in the 0 dB position. In this mode, the technical characteristics of the V.A.S. MicPre are best, lowest noise and distortion and maximum headroom. To achieve more distorted sounds, the output-level can be decreased and the gain increased. Another application for the output control is to match the output-level precisely to downstream equipment like A/D converters. It does not affect headphone volume.

VOLUME – Headphone Volume:

Sets the headphone volume only, the output level is unaffected by this control.

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Technical Data:

Frequency Response	:	20 Hz – 20,000 Hz, +/- 1 dB
Distortion	:	< 0.05 % at +4 dBu output level
Input Noise	:	< -127 dB
Gain Range	:	0 db to 65 db (using Pad)
Input Impedance	:	> 1500 Ohms or 300 Ohms selectable
Low Cut	:	60 Hz (switchable)
DI Impedance	:	> 100K Ohms
Max. Input Level	:	+ 24 dBu, Pad activated
Output Impedance	:	600 Ohms
Max. Output Level	:	+ 26 dBu
Input Attenuator (PAD)	:	- 20 dB (switchable)
Mains Voltage	:	90 VAC to 240 VAC, 50 – 60 Hz
Power Consumption	:	25W max.

Dimensions:

L x H x D (with feet)	:	200 mm x 51 mm x 170 mm
L x H x D (without feet)	:	200 mm x 44 mm x 170 mm
Weight	:	1200 g

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