



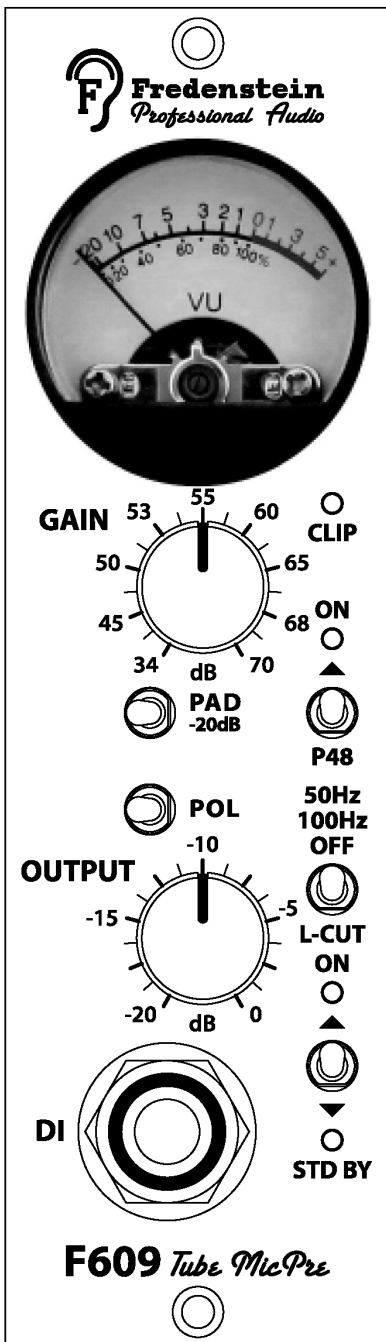
Fredenstein
Professional Audio

**F609 TUBE
MIC-PRE**

Operating Manual

Fredenstein F609 Tube Microphone Preamplifier

The F609 is a professional tube microphone preamplifier, using two double-triodes, one ECC802S and one ECC803S, in a single 500 series rack module. It provides an +160V power-supply to avoid starving the tubes. The F609 uses high quality American made input and output transformers. Additional features are: 20db Pad, polarity control, phantom power, a two stage low-cut filter, and a standby mode to preserve the tubes if not in use. The sound is very smooth with a big, but well defined, low-end. The output level control allows to change the characteristic of the amp and to run the first stages all the way up to distortion. As all Fredenstein products, the F609 is designed by a German-American team and manufactured in Taiwan.



Overview:

Output Level Indicator

0VU = +4dBu

Clip Indicator

Threshold +24 dBu

Rotary Controls:

GAIN : Gain Control, maximum +70 dB
OUTPUT : Output Level, -20dB to 0 dB

Switches:

PAD : -20dB attenuator
POL : Output Polarity
P48 : +48 Volt Phantom Power
L-CUT : High Pass Filter 50 or 100Hz
ON : Power on or Standby

Connectors:

DI : High impedance input for instruments accepts unbalanced signals

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Installation:

Please power down your rack or box first before inserting the F609. The power requirements are maximum +/-16V, +/-250mA. In case you don't use a Fredenstein Bento, please make sure your box or rack can support the current. Please consult your third party documentation in case of any doubt.

Gain Control:

Microphone Preamplifier Gain Control, minimum +34dB, maximum +70dB.

Output Control:

Range -20dB to 0db. The 0db position is the normal linear setting.

PAD – Input Attenuator

Activating PAD attenuates the microphone signal by 20dB. PAD does not change the DI level.

POL – Polarity Control:

Setting the signal polarity, when turned on, the signal is inverted.

Low Cut – High Pass Filter:

Two stage low-cut filter, 50Hz or 100Hz

P48 Phantom Power:

Most FET condenser microphones as well as some other microphones with built-in amplifiers require +48V Phantom Power. Setting the P48 switch to the right 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.

ON – Standby Switch:

Turns the F609 on (switch in upper position, green LED lit) or activates standby mode (switch in lower position, yellow LED lit). In standby mode, the high voltage supply, the tube heaters and the VU meter back-light are turned off. Please allow 30 seconds for the amp to be fully functional after turning it on.

DI – Direct Input:

The most common use for the DI input is to connect instruments like guitars directly to the F609. The input impedance is greater than 500 KOhms to insure compatibility with most instrument pickups. After inserting an unbalanced (TS, Tip-Sleeve) plug, the balanced microphone input through the box or rack is automatically disabled.

Please note:

As a pure analog product, the F609 does not support digital read-out on Bento D displays.

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Technical Data:

Frequency Response :	20 Hz – 20,000 Hz, +/- 1dB
Distortion :	< 0.1%
Input Noise :	< -127 dB
Input Impedance :	> 1200 Ohms
Max. Input Level :	+ 12 dBu
Output Impedance :	200 Ohms
Max. Output Level :	+ 26 dBu
Clip Indicator :	+ 24 dBu
Input Attenuator PAD:	- 20 dB
High Pass Filter :	50 Hz or 100Hz (switchable)

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