

# INTRODUCTION TO THE 1276



In this guide, we will discuss the operation, care and some techniques to getting the most of your gear.

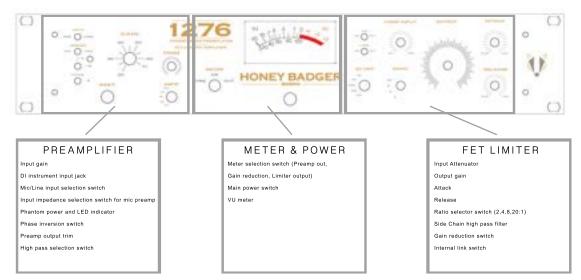
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### **FRONT PANEL**



As the signal flow is from right to left, we will discribe each section in that order.

#### 1. PREAMPLIFIER SECTION

The input *GAIN* is designed as a 10-step switch increasing at each step. The topography of the preamplifier has three Class A gain stage sections. Stage 2 and 3 are achieved in the first 7 steps. The final gain stage is achieved only at the  $8^{th}$  step or higher, and thus in some cases you might experience a slight pop or jump in levels. This is normal operation as you engage the final gain stage.

The 1276 can receive Microphone/Line and DI signals. There is a switch to select between the rear Mic/Line connections.

When connecting an instrument to the 1276, you must select the Line input. Connecting an instrument will interrupt the Line input from the rear connection.

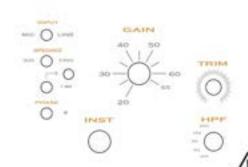
The *IMPEDANCE* switch selects the input transformer windings and changes the input impedance between 300 and 1300 OHM. Experimenting with this switch on various inputs will deliver increased low end in the audio signal. It is suggested to use the 1300OHM selection for DI instruments.

*PHANTOM* power switch will deliver a +48VDC to power a condensor microphone. Be careful when engaging the phantom power and disconnecting microphones. It is ALWAYS recommened to turn off phantom power and wait a minimum of 10 seconds BEFORE disconnecting a microphone. Phantom power will only be engaged on the Microphone input connection so there is no worries about phantom power being on while connecting a DI or Line input.

 $\it PHASE$  inversion switch will flip the phase 180°. This occurs post preamplifier and has no effect on the audio signal entering the preamp section.

OUTPUT TRIM will reduce the signal from 100% to -INF. This is useful when signals are soft clipping on the output.

The *HIGH PASS FILTER* section is an inductor-based High pass section that is positioned between Gain stage 2 and 3. By reducing the low frequencies prior to the final gain stage, it is also possible to obtain less harmonics introuced in the final gain stage. The option of OFF, 50Hz, 80Hz, 160Hz and 300Hz are selectable.





#### 2. MAIN POWER & METER SECTION



MAIN POWER switch will turn the unit ON and OFF. There is a transportation power switch on the rear panel to cut supply to the power transformer. This should be turned OFF whenever the unit might have the possibility of being plugged into the wrong input voltage.

The *METER* switch will allow you to select between the outputs of the Mic preamp, Gain reduction and the Limiter amplifier. When the Gain reduction mode is selected, the meter will resolve at 0dB and will only move when the compressor input is increased AND the *GR* switch is at the ON position.

#### 3. LIMITER SECTION

The 1276 compressor/limiter differs from many other units as the Threshold is tied to the input attenuator rather than having a separate control. As the input signal increases, it engages an internal threshold that is set during the configuration of the unit. The *LIMITER* is a feedback-style compressor and, although it being fixed, the threshold changes depending on the ratio. At higher ratio/threshold, the knee is also harder, which is obviously useful for controlling peaks, while lower ratio/thresholds have a softer knee for subtler gain reduction.

The *COMP INPUT* is the input level and threshold. As the level increases, it will begin to interact with the internal threshold.

*OUTPUT* sets the output level of the limiter. At full counter-clockwise, there will be no output signal from the unit. Be cautious when adjusting the output level as there is over 80dB of gain in the limiter section, and may overload converters or audio devices later in the chain.

ATTACK sets the attack of the compressor. This ranges from 800µs to 20µs.

RELEASE sets the release of the compressor and ranges from 1.1s to 50ms.

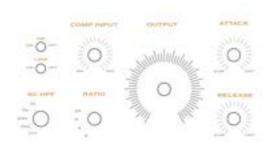
*SC HPF* controls the sidechain filter. This is useful for reducing Low frequency energy from interacting with the compressor. The design of the unit will allow for you to reduce Low frequency energy at -6dB/octave centered at 100Hz, 200Hz, 5KHz, and 7KHz. The frequency range of 5 and 7KHz was designed to allow you to use the limiter section as a DE-Esser, effectively reucing high frequency buildup.

The *LINK* switch internally joins the preamplifier and the limiter section, reducing the external routing and the distance the signal is required to travel. When engaged, there will no longer be signal on the preamplifier output XLR.

The GR switch turns the gain reduction of the unit ON and OFF. This is useful if you would like to A/B the signal with or without any gain reduction.



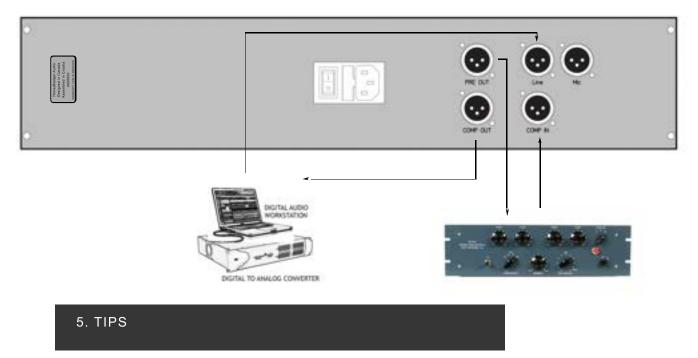
Although there are no rules in recoring, it is important to remember that it is possible to overdo it. When compressing signals, there are no undo controls, so moderation may be a good approach, unless a specific signal or compression level is desired. This is especially important to keep in mind when recording vocals. Perhaps a softer aproach may be necessary to achieve the results. In any case, the 1276 limiter can be an incredible asset to control the dynamics of a performance.







Integrating your device into your recording chain is simple. All audio connections on the rear panel are balanced XLR connections. The top three connections are for the preamplifier section, while the bottom ones are for the Limiter section.



#### **INTEGRATING YOUR EFFECTS**

The 1276 is a versatile asset to the modern recording chain. We planned the routing to offer excellent options. You can use the 1276 as the main recoring unit while adding your favorite saturation, EQ or any other creative unit in between the Pre amplifier and Limiter by connecting the PRE OUT connection to the input of your EQ and the output of your EQ to the COMP IN. Just follow the diagram as illustrated.

#### DRIVING THE LINE IN

Using the 1276 as a line amplifier is also a great tool for breathing more life into your synth, digital and DI instruments. When running a signal into the LINE connection, you will gain the added harmonic drive and saturation from the preamplifier section. It is recommended to check the output levels from your DAW to ensure that it is set to a +4dBu output and ensure there is no clipping on the output signal.

#### THE CLASSIC OVERDRIVE TECHNIQUE

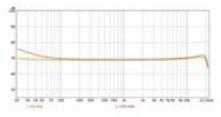
The 1276 differs from many other preamplifiers in that the Input transformer is the first piece of electronics that the signal comes into contact with. This topography will allow for some pretty radical saturation. Begin by setting the input at an average recording level. This will depend on the recored source, but anything below -5 on the VU is a good staring point. Make sure the output trim is set to full on or full clockwise. Next, increase the input gain until soft clippingon your DAW. Reduce the output TRIM until the levels return to the -5 position on the VU. You may need to tweak this formula to taste or to fit your recording.



#### 4. SPECS

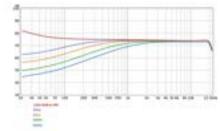
Input Voltage: 110VAC 50/60Hz North America 220VAC 50/60Hz Europe Power Consumption: 22 Watts Fuse rating: 0.75A 250VAC Fast blow glass fuse Freq Response: 20-22500Hz Shipping weight: 11Lbs Dimensions: 2U rack space (L 14" x W 19" x H 3.5") Preamp Type: Transformer balanced discrete preamplifier Compressor Type: Field effect transistor transformer balanced limiter Analog inputs: 3x XLR (Microphone input, Line input, Compressor input) Analog outputs: 2x XLR (Preamplifier output, compressor output)

#### INPUT TRANSFORMER IMPEDANCE



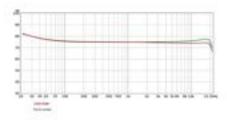
Signal through the Preamplifier section ONLY.

#### HIGH PASS FILTER



300 OHM impedance switch active, signal is through the Preamplifier section ONLY.

#### Pre & Limiter Response



1300 OHM impedance switch active, signal is through the Preamplifier & Limiter.



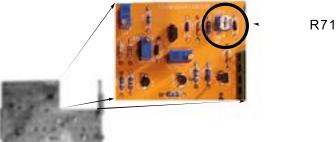
6. FAQ

#### Why don't I hear anything?

Check that the VU meter is responding with the input signal. If the meter is not responding and you are using a condenser mic, check that Phantom power is active and the Phantom power LED indicator is on. Check that the output TRIM is at full on or full CLOCK-WISE position.

#### My VU meter doesn't sit at 0 in GR mode.

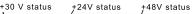
There is a simple callibration to reset the VU meter. In the R71 position, you will see a trimpot. Turning this will adjust Zero on the VU meter.



#### My unit does not turn ON.



There are several places to check for proper voltage. The 1276 has a regulated power supply elivering various voltages for the circuits. Please check these location with a VU meter set to measure DC volts. ONLY a licensed and approved service tech should be working on our units to avoid any damage or personal injury.





IF YOU HAVE ANY OTHER ISSUES OR TECHNICAL QUESTIONS, CONTACT YOUR LOCAL DISTRIBUTOR OR SEND US AN E-MAIL DI-RECTLY TO OUR SUPPORT BY VISITING WWW.HONEYBADGER-AUDIO.COM.





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