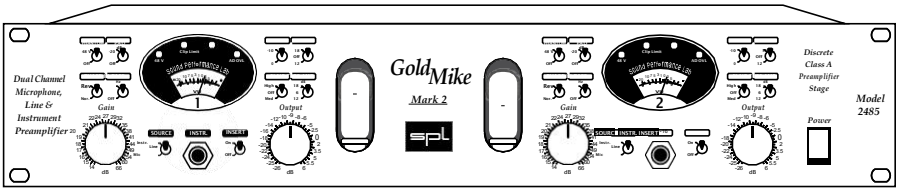
Manual

用户手册



GoldMike Mk2

Model 2485

双通道麦克风和乐器前置放大器

Version 1.2 版本 – 12/2005

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Tilgner

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Introduction 介绍

The GoldMike MK2 is the result of all our experience and knowledge from its successful predecessor and represents an improved, more flexible and more modern version.

GoldMike MK2 我们所有经验和知识的结晶是从成功的上一代那里获得的。更新的版本变得更好，更灵活，更现代。

We have added technologies that have already proven to provide superior tonal results in other SPL products. For example, the instrument input is designed around a class A impedance converter which premiered in the SPL GainStation preamp.

我们增加了在其他SPL产品中已经被证明能提供卓越音效的技术。例如，乐器输入是围绕一个A类阻抗转换器设计的，该转换器在SPL GainStation前置放大器中首次使用。

A significant contribution to the success of the predecessor was the hybrid preamplifier concept. It combines transistor and tube preamplifier stages and specifically utilizes their technological and sonic advantages: the efficiency and low noise of a discrete transistor stage is enriched with musical coloration of a tube stage.

前代产品成功的一个重要贡献是混合型前置放大器的概念。它结合了晶体管和电子管前级放大器，并特别利用了它们的技术和声音优势：分立晶体管级的效率和低噪音与电子管级的音乐色彩相得益彰。

The transistor stage is composed of single transistors in a class A design. The circuitry is fully discrete, and each transistor is completely optimized for its specific task. You will not find any integrated circuits in this preamplifier stage because they cannot be optimized for this specific application to the degree we aimed for. This all new discrete class A transistor stage is a genuine innovation in the entire preamplifier market at this price level.

晶体管级是由A类设计的单晶体管组成。电路是完全分立的，每个晶体管都为其特定任务进行了完全优化。在这个前置放大器级中，你不会发现任何集成电路，因为它们无法为这个特定的应用优化到我们所期望的程度。这个全新的分立A类晶体管级在这个价格水平的整个前置放大器市场中，是真正的创新。

The degree of tube pre-amplification is no longer the fixed +6 dB value of its predecessor. The GoldMike MK2 sports the selection of three different tube pre-amplifications: +6 dB remains the standard complemented by +12 dB and +18 dB. This allows creative variety with the tube saturation and limiting effects.

We have also added an extra setting to the popular Flair circuitry to give more flexibility to the presence improvement.

电子管前置放大的程度不再是上一代产品的固定+6dB值。GoldMike MK2可以选择三种不同的电子管前置放大。+6dB仍然是标准值，辅以+12dB和+18dB。这使得电子管的饱和度和限制效果有了创造性的变化。

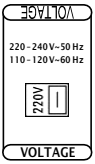
我们在Flair流行的电路还额外增加了一个设置，以使存在的改进有更多的灵活性。

Because the GoldMike MK2 is a dual channel preamplifier, its channel separation is of fundamental importance for the stereo image. Therefore the print-board layout is symmetrically mirrored around the power supply in the center from channel 1 to channel 2. This results in an identical signal flow to supporting a naturally balanced stereo image. Additionally the print-board provides extra-large ground areas maximizing the shielding against crosstalk and interference.

因为 GoldMike MK2是一个双通道的前置放大器，因为GoldMike MK2是一个双通道前置放大器，它的通道分离对立体声图像具有根本的重要性。因此，印制电路板的布局是围绕着中央电源从通道1到通道2对称地反映出来的。这导致了一个相同的信号流，支持一个自然平衡的立体声图像。此外，印制电路板提供了超大的接地区域，最大限度地屏蔽了串扰和干扰。

IMPORTANT: Before you operate your GoldMike MK2, first check carefully whether the local voltage setting corresponds to the switch setting on the rear panel!

重要提示：在操作 GoldMike MK2 之前，首先要仔细检查当地的电压设置是否与后面板上的开关设置相一致！



If not, and the voltage is in one way or another, incorrect, you will either experience an immediate fuse burn through (if the setting is lower than the supplied power) or, if the power is 110-120 V at a 220-240 V input switch setting, the GoldMike MK2 will simply not function correctly.

如果没有，而且电压在某种程度上是不正确的，你会马上遇到保险丝烧毁的情况（如果设置低于提供的电源）或者，如果电源是110-120V，而输入开关设置为220-240V，GoldMike MK2 根本是无法正常工作的。

Moreover, make sure you remove the power plug from your GoldMike MK2 before changing this switch setting!

此外，在改变这个开关设置之前，请确保将电源插头从 GoldMike MK2 上拔下来!

Always turn volume down or mute your speakers when connecting or repatching audio cables to avoid damage to your speakers and ears.

在连接或重新匹配音频线时，一定要将音量调低或将扬声器静音，以避免对扬声器和耳朵造成损害。

It makes good sense to think about where you place the unit before connecting it. It should be positioned so that you can easily reach it, but there are other considerations. Try not to place it near heat sources or in direct sunlight, and avoid exposure to excessive vibrations, dust, heat, cold or moisture. It should also be kept away from transformers, motors, power amplifiers and digital processors. In addition, please:

在连接设备之前，你考虑一下把设备放在哪里是很好的选择。它的位置应该是你可以很容易接触到它，但也要有其他考虑。尽量不要把它放在靠近热源或阳光直射的地方，避免暴露在过度振动、灰尘、热、冷或潮湿的环境中。它还应远离变压器、电机、功率放大器和数字处理器。此外，还请注意：

- Do not open the case. You may risk very dangerous electric shock and damage to your equipment.
- Leave repairs and maintenance to a qualified service technician. Should foreign objects fall inside the case, contact your authorized dealer or support person.
- To avoid electric shock or fire hazards, do not expose your unit to rain or moisture.
- In case of lightning, unplug the unit. Always unplug the cable by pulling on the plug only; never pull on the cable.
- Never force a switch or knob.
- Use a soft, lint-free cloth to clean the case, if necessary together with an acid-free cleaning oil. Avoid any cleaning agents as they may damage the surfaces of the unit.

-请不要打开箱子。你可能会有非常危险的电击和损坏设备的风险。

-把维修和保养留给合格的维修人员。如果有异物落入箱内，请联系您的授权经销商或支持人员。

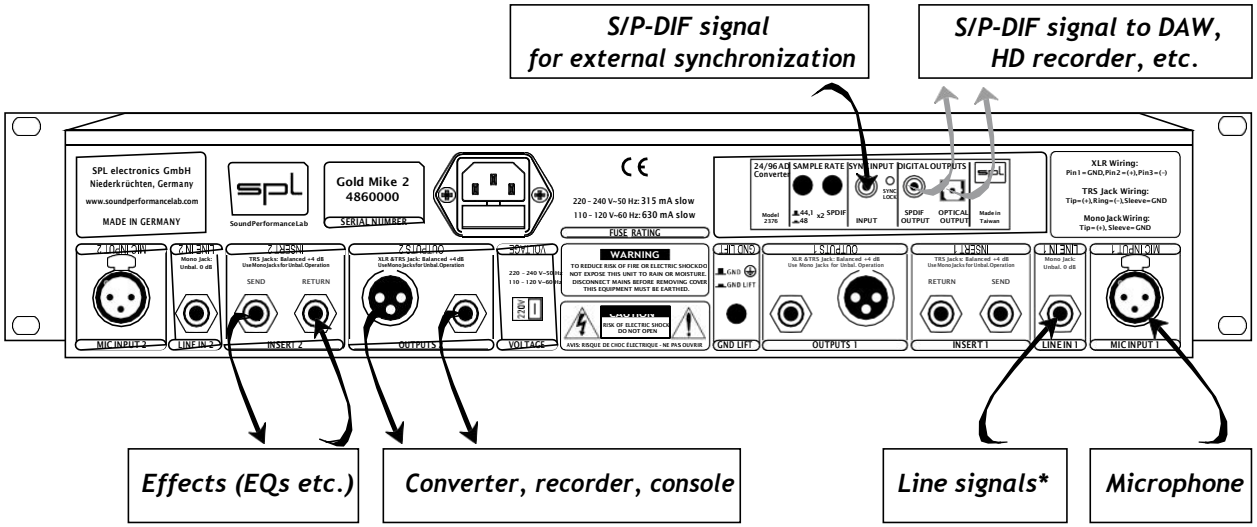
-为了避免电击或火灾的危险，不要将设备暴露在雨中或潮湿的地方。

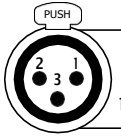
-在发生雷电的情况下，请拔掉设备的插头。拔掉电缆时，一定要只拉住插头，不要拉扯电缆。

-千万不要强行拉动开关或旋钮。

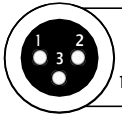
-使用柔软的无绒布清洁外壳，如有必要，可配合使用无酸清洁油。避免使用任何清洁剂，因为它们可能损坏设备的表面。

Optional A/D converter, model 2376





Pin wiring of XLR mic inputs
1=GROUND, 2=hot(+), 3=cold(-)



Pin wiring of XLR outputs
1=GROUND, 2=hot(+), 3=cold(-)

Pin wiring of TRS connectors
Tip=hot(+), Ring=cold(-), Sleeve=Ground

* For signals with impedances lower than 1 kOhms, i. e. D/A converters, synths, samplers.
Instruments with impedances above 1 kOhms are to be connected to the instrument input on the front (see input descriptions on pages 8 and 9).

S/P-DIF signal for external synchronization：用于外部同步的 S/P-DIF 信号

S/P-DIF signal to DAW, HD recorder, etc.：S/P-DIF信号到 DAW、高清录音机等。

Effects (EQs etc.)：效果（均衡器等）

Converter, recorder, console：转换器、录音机、控制台

Line signals：线路信号 **

Microphone：麦克风

Pin wiring of XLR mic inputs 1=Ground, 2=hot(+), 3=cold(-)：XLR话筒输入 Pin wiring 1=接地，2=hot（+），3=cold（-）；

Pin wiring of XLR outputs 1=Ground, 2=hot(+), 3=cold(-)：XLR输出 Pin wiring 1=接地，2=hot（+），3=cold（-）；

Pin wiring of TRS connectors Tip=hot(+), Ring=cold(-), Sleeve=Ground：TRS连接器 Pin wiring Tip=hot（+），Ring=冷（-），Sleeve=接地；

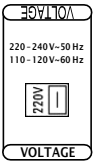
**For signals with impedances lower than 1 kOhms, i. e. D/A converters, synths, samplers.*

**用于阻抗低于 1 千欧的信号，即 D/A转换器、合成器、采样器。*

Instruments with impedances above 1 kOhms are to be connected to the instrument input on the front (see input descriptions on pages 8 and 9：阻抗超过1千欧的乐器要连接到前面的乐器输入上（见第8和第9页的输入描述）。

Again, while the GoldMike MK2's housing is EMV-proof and protects against HF-interference, placement of the unit is very important since it amplifies microphone signals as well as other unwanted signals. Before connecting the GoldMike MK2 or any other equipment turn off all power.

IMPORTANT: Adjust the voltage setting on the back so that it corresponds with your local power conditions.



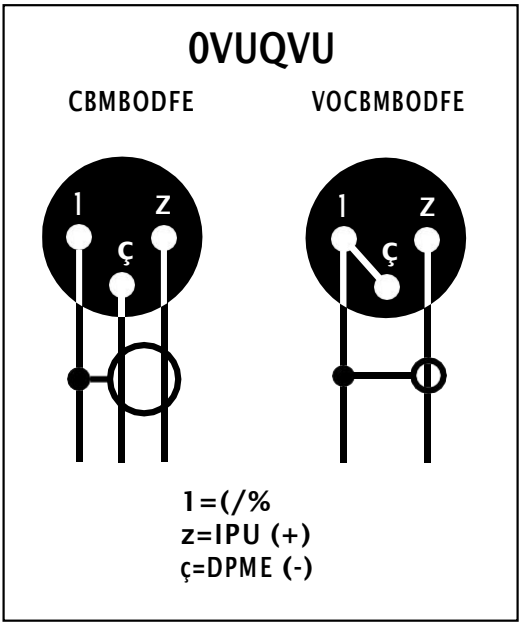
The following graph shows the correct wiring for connecting unbalanced signals to the balanced XLR connectors:

同样，虽然 GoldMike MK2 的外壳EMV-proof

的，可以防止高频干扰，但设备的放置非常重要，因为它可以放大话筒信号以及其他不需要的信号。在连接GoldMike MK2或任何其他设备之前，请关闭所有电源。

重要提示：调整背面的电压设置，使其与当地的电源条件相一致。

下图显示了将非平衡信号连接到平衡XLR接头的正确接线方法。

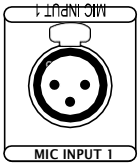


The Line Input connector is designed for unbalanced signals only.

The TRS output connectors (see “Outputs“ on page 9) can be operated both with balanced and unbalanced wiring. Simply use a mono 1/4" plug for unbalanced operation.

线路输入连接器只设计用于非平衡信号。

TRS输出接口（见第9页的 "输出"）可以用平衡和非平衡的接线方式操作。只需使用一个单声道1/4 "插头即可进行非平衡操作。



Mic Input 麦克风收入1/2

Dynamic, condenser or tube microphones can be connected to the Mic inputs. The 48 V switch provides the phantom power necessary for some microphones (see also “Control Elements/ Phantom“ on page 11).

动态、电容或电子管麦克风可以连接到麦克风输入端。48V 开关为某些话筒提供了必要的幻象电源（参见第11页的 "控制元件/幻象"）。

Alternatively the GoldMike MK2 can be equipped with optionally available input transformers from Lundahl (see “Lundahl Transformers“ on page 22).

另外，GoldMike MK2 还可以配备 Lundahl 公司提供的可选输入变压器（见 "Lundahl变压器 "第22页）。

Line In 线路输入1/2

The unbalanced Line Inputs are dedicated to high-impedance, high-level signals such as A/D converters, synthesizers or samplers with an impedance of less than 1 kOhm. Signals with an impedance of above 1 kOhm, e. g. instruments like E bass, acoustic guitars with pickups or Fender Rhodes must be connected to the Instrument Input on the front panel.

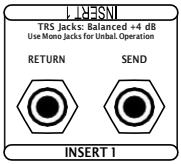
The max. input level of the Line Inputs is +23 dB.

非平衡线路输入专门用于阻抗小于1千欧的高阻抗、高电平信号，如 A/D 转换器、合成器或采样器。阻抗超过 1千欧的信号，如E贝司、带拾音器的原声吉他或Fender Rhodes等乐器，必须连接到前面板的乐器输入。

线路输入的最大输入电平是+23dB。

IMPORTANT: The Line Input is deactivated as long as an instrument is plugged into Instrument Input jack on the front. We recommend connecting the Line Input to a patchbay if sources need to be changed regularly.

重要提示：只要有乐器插入前面的乐器输入插孔，线路输入就会被停用。如果需要定期更换音源，我们建议将线路输入连接到跳线上。

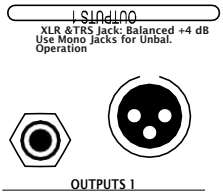


Inserts 插入 1/2

The balanced TRS Insert connectors (Send and Return) are used to integrate further units (EQs, compressors, limiters, effects ...) into the signal path of the GoldMike MK2. The Send connector is placed behind the tube stage and can also be used as direct out (without output level control). The Return connector is located in front of Limiter and Output control which allows to control the output level, e. g. for precise drive level of following A/D converters.

平衡TRS 插入连接器（发送和返回）用于将其他单元（均衡器、压缩器、限幅器、效果器...）集成到 GoldMike MK2 的信号路径中。发送接口位于电子管级的后面，也可以作为直接输出使用（没有输出电平控制）。返回接口位于限幅器和输出控制的前面，可以控制输出电平，例如用于精确驱动下面的 A/D 转换器的电平。

Outputs 输出1/2



The preamplifier signals are fed to these electronically balanced outputs. Alternatively the GoldMike MK2 can be equipped with optionally available transformer outputs from Lundahl (see “Lundahl Transformers” on page 22).

前置放大器的信号被送入这些电子平衡输出。另外，GoldMike MK2 还可以配备Lundahl公司的变压器输出（见第22页的 "Lundahl变压器"）。

Since the XLR and 1/4 inch TRS connectors are wired in parallel, an unbalanced connection at one connector will cause unbalanced operation in its parallel connector, e.g. if a mono 1/4 inch plug is inserted into the 1/4 inch jack, the corresponding XLR socket will also operate unbalanced.

GND LIFT

由于XLR和1/4英寸TRS接头是并联的，一个接头的不平衡连接将导致其并联接头的不平衡操作，例如，如果一个单声道1/4英寸插头插入1/4英寸插孔，相应的XLR插座也将操作不平衡。

GND Lift 隔绝接地环路（噪声）

The GND Lift switch separates internal ground from chassis ground. The switch can be activated to eliminate ground loop humming which may occur if the GoldMike MK2 is connected to units with a different ground potential.

The switch should normally be in the GND position to maintain the shielding effect of the metal housing for internal GoldMike MK2 electronics.

GND升降开关将内部接地与底盘接地分开。如果GoldMike MK2与不同地电位的设备相连接，该开关可被激活以消除可能出现的地环嗡嗡声。

该开关通常应在GND位置，以保持金属外壳对内部 GoldMike MK2 电子器件的屏蔽作用。

Instr. Input 1/2

The Instrument input jack is placed on the front panel for easy access. It should be used to connect instruments like E-bass, electric guitars, acoustic guitars with pick-ups, etc.

The Instrument input features a 1 MOhm (one Mega Ohm) input impedance.

IMPORTANT: As long as an instrument is plugged into front Instrument input, the rear panel Line Input is deactivated.

乐器输入插孔位于前面板上，便于使用。它应该用来连接乐器，如E低音提琴、电吉他、带拾音器的原声吉他等。

仪器输入具有 1 MOhm（百万欧姆）的输入阻抗。

重要的是：只要有乐器插入前面的乐器输入，后面板的线路输入就会停用。

Control Elements 控制元件

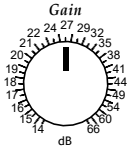
Power

Power 电源

You guessed that: with the Power switch the GoldMike MK2 is activated, verified by the illuminating switch. Please read “Before You Begin” on page 5 before throwing in for the first time.

如你猜想的那样：通过电源开关，GoldMike MK2 被激活，并由发光的开关加以验证。在第一次投入使用之前，请阅读第5页的 "开始之前"。

Gain



Gain 增益

The Gain control determines the level of pre-amplification. The pre-amplification values cover a range from +14dB up to + 67dB.

增益控制决定了预放大的水平。预放大值的范围从+14dB到+67dB。

IMPORTANT: If Lundahl input transformers are fitted the scale values are to be increased by up to +14dB (depending upon microphone in use).

重要的是：如果安装了Lundahl输入变压器，那么刻度值将增加到+14dB（取决于使用中的话筒）。

About Gain Adjustments 关于增益调整

Amplifying a signal to line level should principally be done solely with the Gain control. The Output level control is used to adjust the proper drive level for subsequent equipment.

The VU Cal switch should be set to 0dB (Note: The VU displays the pre-amplification, not the output level).

Now turn up the Gain control until the VU shows values between 0 dB and +3 dB. There is still enough headroom to prevent clipping at varying input levels. Note that the VUs show average levels instead of peak levels (which can be up to 10 dB higher).

Thus, in recording high-level signals such as snare and kick, etc. it may be necessary to engage the Pad switch.

You can drive the Gain harder if you know that unexpected input level changes are unlikely to occur. Watch if the Clip-LED indi-

cates clipping in the preamplifier stages and set the VU Cal to -10dB to adjust the VU meter range accordingly.

IMPORTANT: The Clip-LED should never illuminate during a recording session to avoid distorted results.

将信号放大到线路电平，主要是通过增益控制来完成。输出电平控制是用来调整后续设备的适当驱动电平。

VU校准开关应该设置为 0dB（注意：VU显示的是预放大，而不是输出电平）。

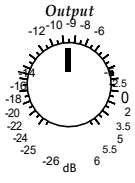
现在调高增益控制，直到 VU 显示的数值在0dB和+3dB之间。在不同的输入电平下，仍有足够的净空来防止剪辑。注意，VU 显示的是平均电平，而不是峰值电平（峰值电平可以高达10dB）。

因此，在录制高电平信号时，如小鼓和踢踏乐等，可能需要使用Pad开关。

如没有你预期的那样电平输入发生变化，你可以加强驱动增益。观察Clip-LED是否显示前级放大器的削波，并将VU Cal设置为-10dB以相应地调整VU表的范围。

重要的是：在录音过程中，Clip-LED不应该亮起，以避免结果失真。

Output
输出



This potentiometer adjusts the output level for devices following in the chain or to the converter. The Output Level control allows an additional +6 dB of amplification or -26 dB of reduction. Output level values set with the output level control are not indicated by the VU meters, which indicate pre-amplification levels before this final stage.

Phantom幻象

The GoldMike MK2 provides 48 Volt phantom power for microphones requiring external current (generally condenser microphones). Such microphones are dependent upon a clean, consistent and noise-free power supply for optimal operation and audio quality. The GoldMike MK2 continuously delivers precisely 48 V and a maximum of 14 mA, which will power all microphones.

VERY IMPORTANT: All microphones with balanced, ground-free outputs, including tube microphones, can be used with the phantom power activated. Phantom power should only be activated when using microphones that require it. Please be sure to deactivate phantom power with all other microphones. Unbalanced microphones may only be used with phantom power deactivated.

PLEASE ALWAYS FOLLOW THESE INSTRUCTIONS TO ACTIVATE 请务必按照以下说明来激活幻象电源 AND DEACTIVATE PHANTOM POWER: First connect the microphone to the GoldMike MK2, then activate phantom power. When finished, first deactivate phantom power and wait at least until the 48V LED has gone out completely before disconnecting the microphone! This ensures residual current will be discharged. Furthermore, when changing microphones, you should wait until the 48V LED is completely dark before re-patching. **THE GOLDMIKE MK2'S INPUT STAGES CAN BE DAMAGED IF YOU IGNORE THESE PROCEDURES!**

输出

这个电位计可以调整链中后续设备或转换器的输出电平。输出电平控制允许额外的+6dB 的放大或-26dB 的缩小。用输出电平控制设置的输出电平值不会被 VU 表显示出来，VU 表显示的是这个最后阶段之前的预放大电平。

幻象

GoldMike MK2 为需要外部电流的微型电话（通常是电容式微型电话）提供48伏幻象电源。这类话筒需要一个干净、稳定、无噪音的电源来实现最佳的操作和音频质量。GoldMike MK2 连续提供精确的48伏和最大14毫安，这将为所有的微型电话供电。

非常重要的是：所有具有平衡、无地线输出的麦克风，包括电子管麦克风，在激活幻象电源的情况下都可以使用。只有在使用需要幻象电源的麦克风时，才应激活幻象电源。请确保在使用所有其他麦克风时，停用幻象电源。不平衡的麦克风只能在停用幻象电源的情况下使用。

请务必按照以下说明来激活幻象电源

激活和解除幻象电源：首先将微型电话连接到 GoldMike MK2，然后激活幻象电源。完成后，首先停用幻象电源，至少要等到 48V的LED 灯完全熄灭后再断开麦克风的连接！这样可以确保剩余的电流被释放。此外，当更换麦克风时，应该等到 48V LED 完全变暗后再重新配对。如果你忽视了这些程序，Goldmike Mk2 的输入级可能会被损坏!

Control Elements

Phase 相位

The phase reverse function reverses the polarity of the microphone signal, inverting the phase (by 180°) to correct phase-inverted signals caused by multiple signal sources. A voice-over artist, for example, hears himself during recording through the headphones and simultaneously through the bones in his head. Phase inversion will cause an unnatural sound, and even minimal variations in distance to the microphone will cause drastic variations in the sound. Phase inversion is also commonly encountered when using multiple microphones on a single sound source. We recommend checking for correct polarity before each recording.

Pad

The Pad switch attenuates the input by -20dB. High-level input signals can be attenuated in order to prevent overdriving the preamplifier. The GoldMike MK2 has a minimum pre-amplification of +14 dB. But with miked signals such as drums and brass or high level line input signals, this may already be too much. Engaging Pad attenuates the minimum pre-amplification (Gain control fully counter clockwise) to -6 dB, thus providing a useful Gain control range for loud input signals.

Hi Pass

This switch activates the integrated high-pass filter, which operates from 50 Hz downwards with 12 dB/octave (often called a “rumble filter“). The filter is entirely passive, avoiding addi- tional active circuitry that could potentially degrade the signal, and cuts 6 dB pre- and 6 dB post-solid-state stage pre-amplifi- cation to prevent the amplification of unwanted low-frequency signal components.

相位

相位反转功能可以扭转微型电话信号的极性，将相位反转（180°），以纠正由多个信号源引起的相位反转信号。例如，一个配音艺术家，在录音过程中通过耳机听到自己的声音，同时通过头部的骨骼听到自己的声音。 相位倒置会导致不自然的声音，即使与麦克风的距离变化很小，也会导致声音的急剧变化。当在一个音源上使用多个麦克风时，也经常会遇到相位倒置的情况。我们建议在每次录音前检查极性是否正确。

Pad

衰减开关将输入衰减为-20dB。高电平输入信号可以被衰减，以防止过度驱动前置放大器。GoldMike MK2的最小前置放大倍数为+14dB。但对于鼓和铜管等麦克风信号或高电平线路输入信号，这可能已经太多。使用垫子可以将最小的前置放大（增益控制完全逆时针）衰减到-6dB，从而为大的输入信号提供一个有用的增益控制范围。

高通

这个开关激活了集成的高通滤波器，它的工作频率从50Hz往下，12dB/倍频程（通常称为 "隆隆滤波器"）。该滤波器是完全无源的，避免了可能降低信号的附加有源电路，并在固态级预放大前和后削减6分贝，以防止不需要的低频信号成分的放大。

Flair

As with its predecessor, the model 9844 GoldMike, the GoldMike MK2 features our sound-optimizing Flair circuitry. This circuitry takes advantage of a combined coil and tube filtering to enhance signal presence. In comparison to simple EQ manipulation, this intensified presence sounds very natural and unobtrusive, and is particularly suited for optimizing the overtones in voice and acoustic instruments.

With Flair processing, a signal gains richness in detail, presence, intelligibility (for vocals), and in an increased ability to cut through in a mix. In such mixes, a Flair-processed signal stands out without resort to conventional processing often unsuited to the task, saving both time and a need for artificial processing.

Flair works through an emphasis in the 1.5-20 kHz range centered around 6 kHz.

The GoldMike MK2 provides for two different settings, with a "High" setting of +2.5 dB and a "Med." with +1.5 dB emphasis. An Off setting allows you to deactivate the Flair circuit entirely.

Tube Amp

The Tube Amp switch varies the degree of tube pre-amplification added to the discrete class A pre-amplification, which itself is set with the Gain control. The switch allows for three settings: +6 dB (standard) +12 dB and +18 dB. In each setting the output level of the tube is automatically accomodated so that output levels do not have to be recalibrated when the tube is driven hotter. This allows for instant comparison between varying Tube Amp values and their sonic effects (also refer to "About Gain Adjustments" on page 10).

Flair

与其前身 9844 GoldMike一样，GoldMike MK2拥有声音优化的Flair电路。该电路利用线圈和电子管的组合滤波来加强信号的存在。与简单的 EQ操作相比，这种强化的临场感听起来非常自然和不突兀，特别适合于优化声音和原声乐器的泛音。

通过 Flair处理，信号在细节、预设、可理解性（对于人声）方面获得了丰富的内容，并在混音中增加了切割能力。在这样的混音中，经过 Flair处理的信号可以脱颖而出，而不需要求助于通常不太适用的传统处理方式，既节省了时间，也节省了对人工处理的需求。

Flair通过强调以6kHz为中心的1.5-20kHz范围内的工作。

GoldMike MK2提供了两种不同的设置，一个是+2.5dB的 "高 "设置，一个是+1.5dB的 "中 " 强调。关闭设置允许你完全停用Flair电路。

Tube Amp

电子管吉他放大器开关可以改变添加到离散的A类前置放大中的电子管前置放大的程度，而A类前置放大本身是由增益控制来设定的。

它本身是由增益控制来设定的。这个开关允许三种设置。

+6dB（标准）+12dB和+18dB。在每一个设置中，电子管的输出电平都是自动适应的，因此当电子管被驱动得更热时，输出电平就不必重新校准。 这样可以即刻比较不同的电子管放大器的数值和它们的声音效果（也请参考第10页的 "关于增益调整"）。

Using the Tube Amp switch 电子管放大器开关

Engaging the Tube Amp switch tends to have a significant impact on the overall sound, as it directly changes the sonic character of the tube. The higher the Tube Amp value, the more you will have tube saturation and harmonic distortion, in addition to limiting effects. These effects can be used creatively to shape a sound.

启用电子管放大器开关往往会对整个声音产生重大影响，因为它直接改变了电子管的声音特性。电子管放大器的值越高，除了限制效果外，你还会有电子管饱和度和谐波失真。这些效果可以创造性地用来塑造一个声音。

Subtle overdrive of the tube creates moderate saturation effects and relatively little harmonic distortion—the limiting effects are already present. If this behavior is desired, try a +12 dB setting with the Gain control also set to moderate pre-amplification.

电子管微妙的过载产生了适度的饱和效果和相对较少的谐波失真--限制效果器已经呈现。如果需要反应需求，可以尝试使用+12dB的设置，同时将增益控制也设置为适度的预放大。

For a more dramatic tube sound the Tube Amp switch should be set to +18 dB. This results in a very audible saturation and harmonic distortion. The intensity can then be fine-tuned with the Gain control: the more gain, the more phatt ...

如果想获得更戏剧性的电子管声音，电子管放大器开关应该设置为+18dB。这将导致一个非常明显的饱和度和谐波失真。然后可以用增益控制对强度进行微调：增益越多，声音越大。

Tube limiting controls peaks in a musically advantageous fashion and can be used to co mplement the Limiter. The tube limiting is not as accurate and sonically neutral as the Peak-Limiter because harmonic tube distortion is added to the signal.

电子管限制以一种对音乐有利的方式控制峰值，可以用来补充限制器。电子管限制并不像峰值限制器那样准确和声音中性，因为谐波电子管失真被添加到信号中。

To fully protect connected converters you should keep the Peak-Limiter active and monitor the action of the VU meter, the Clip- and Limiter-LED.为了充分保护所连接的转换器，你应该保持峰值限制器处于激活状态，并监测VU表、剪辑和限制器LED的动作。

Limiter

The GoldMike MK2 offers a peak limiter that operates before the output level control. This ensures that the limited signal can be controlled as perfectly as possible for the internal—or an external—converter.

The peak limiter operates with special diodes that convert signal peaks into a pleasant-sounding saturation. Depending on the signal, this allows for an effective and subtle level limiting. Diode-based limiting works very quickly (much faster than common VCA- or FET-based limiters), reliably limits even micro-second-long transients, and is very effective for drums and percussion. The peak limiter also enables maximum loudness. Its degree of activity is displayed via the Limit LED.

The peak limiter is ideally suited to limit signals with a high degree of transients such as snare, kick, brass and other percussion instruments. Sine-wave like signals such as vocals, flute and layer sounds can also be protected, but the degree of increased loudness is limited.

Overdriving the peak limiter will be audible as distortion, an effect quite similar to overdriving the preamplifier. In order to avoid irritations please monitor the Clip-LED. If the Clip-LED is not illuminating, the distortion is coming from the peak limiter. In that case increase the Threshold value. There are two threshold values to choose from: +12 dB and +18 dB. Limiting is less when selecting the +18dB threshold and intensified when choosing +12 dB. If the Limit LED illuminates constantly, you should select the +18 dB setting or reduce the Gain control setting (also see “Limit-LED“ on page 17).

After setting the Limiter you can adjust the output level signal for equipment coming next in your chain. If you have opted for the internal A/D converter, you should keep an eye on the A/D Ovl LED. When this LED illuminates, the internal A/D converter is clipping. Reduce the output level until the A/D Ovl LED goes out. If external converters are used, check their clipping LEDs when setting the output level.

This placement of the limiter before the output level control helps exploit the headroom of A/D converters to the maximum while at the same time offering a signal peak safety margin.

Limiter 限制器

GoldMike MK2提供了一个峰值限制器，在输出电平控制之前运行。这确保了限制信号可以尽可能完美地控制内部或外部的转换器。

峰值限制器使用特殊的二极管，将信号峰值转换成听起来很舒服的饱和度。根据不同的信号，这可以实现有效和微妙的电平限制。基于二极管的限制器工作得非常快（比普通的基于VCA或FET的限制器快得多），甚至可靠地限制微秒级的瞬态，对鼓和打击乐非常有效。峰值限制器也能实现最大的响度。它的活动程度通过限幅 LED显示出来。

峰值限制器非常适用于限制具有高度瞬态的信号，如小鼓、踢腿、铜管和其他敲击乐器。类似于正弦波的信号，如人声、长笛和音层的声音也可以得到保护，但提高响度的程度是有限的。

过度驱动峰值限制器，会失真，这种效果与过度驱动前置放大器非常相似。为了避免这样的过度，请监测 Clip-LED。如果Clip-LED不亮，那么失真就来自于峰值限制器。在这种情况下，请增加阈值。有两个阈值可供选择：+12dB和+18dB。选择+18dB门限值时，限制较少，选择+12dB时，限制加强。如果Limit LED不断地亮起，你应该选择+18dB的设置或减少增益控制的设置（也见第17页的 "Limit-LED"）。

在设置了限幅器之后，你可以为链中的下一个设备调整输出电平信号。如果你选择了内部 A/D转换器，你应该注意A/D Ovl LED。当这个LED灯亮起时，内部 A/D转换器正在削波。降低输出电平，直到 A/D Ovl LED灭掉。如果使用外部转换器，在设置输出电平时要检查它们的削波 LED。

将限制器放在输出电平控制之前，有助于最大限度地利用 A/D转换器的净空，同时提供一个信号峰值的安全系数。

VU-Cal

The display range of the VU meter can be shifted using the -10dB VU Cal switch position. VU表的显示范围可以通过-10dB VU Cal开关的位置来改变。

If the VU Cal switch is set to its 0 dB position and the output level control is also set to 0dB with the limiter switched off, the output level will effectively be 0 dBu. With the VU Cal set to -10 dB the 0 dB mark on the VU meter will represent a +10 dBu output level. This way you can display audio level higher than +6 dB (up to +16 dB) on the VU meter.
如果将VU-CAL开关设置为0dB位置，同时将输出电平控制设置为0dB，且限位器关闭，则输出电平实际为0dbu。当VU Cal设置为-10 dB时，VU仪表上的0db标记将代表+10 dBu输出电平。通过这种方式，你可以在VU仪表上显示高于+6 dB(最高+16 dB)的音频电平

Source来源

This switch allows you to select between the Mic and Line/ Instrument inputs. All inputs can remain connected at all times, regardless of which input is selected. You can choose the Line input as source as long as the Instrument input is not being used.

这个开关允许你在麦克风和线路/乐器输入之间进行选择。无论选择哪个输入，所有的输入都可以一直保持连接。只要不使用乐器输入，你就可以选择线路输入作为信号源。

If you engage this switch first after powering up the unit, there can be a noticeable pop due to the discharge of residual current. This is normal and no cause for concern.

如果你在开机后先按下这个开关，由于剩余电流的释放，可能会有出现爆音。这是正常现象，不必担心。

Central Display 中英显示器

The display consists of all status LEDs and the VU meter so that all important information can be viewed without distraction.

显示屏由所有的状态LED和VU表组成，这样就可以不分心地查看所有的重要信息。

Display/VU Meter 显示/VU Meter

The VU meter shows the internal gain level (not the output level). Its scale ranges from -20 dB to +6 dB. If needed, the sensitivity can be reduced by 10 dB, which extends the scale to +16 dB (see “VU Cal” above). Please refer as well to the information “About Gain Adjustments” on page 10.

VU表显示内部增益电平（不是输出电平）。它的刻度范围从-20dB到+6dB。如果需要的话，可以将灵敏度降低10dB，从而将刻度扩展到+16dB（见上面的 "VU Cal"）。也请参考第10页 "关于增益调整 "的信息。

Display 显示/48 VLED

The 48V-LED indicates that the phantom power supply is activated. The 48V-LED will slowly dim before going out to indicate that it takes some time for residual current to discharge.

VERY IMPORTANT: The connection between microphone and GoldMikeMK2 should not be disengaged before the LED is completely dark! **To avoid damages, please note also the phantom power supply usage information on page 11.**

48V-LED表示幻象电源已经启动。48V-LED在熄灭前会慢慢变暗，表示需要一些时间来释放剩余的电流。

非常重要的是：在LED灯完全变暗之前，麦克风和GoldMikeMK2之间的连接不应该被断开！为了避免损坏，请注意第11页的幻象电源的使用信息。

Display显示 /Clip LED

The Clip LED shows internal clipping of the GoldMike MK2. To avoid distorted results the Clip-LED should never illuminate during a recording session (also refer to “About Gain Adjustments” on page 10).

Clip LED显示了GoldMike MK2的内部削波情况。为了避免在录音过程中出现失真，Clip-LED不应该亮起（也请参考第10页的 "关于增益调整"）。

Display显示 /Limit LED

The Limit LED shows the activity of the Peak Limiter. The Limiter threshold can be set to 12 or 18 dBu, and for optimal operation, should only illuminate in very short intervals. If the LED is illuminating too often even at the 18 dB position, you must reduce the Gain value (and possibly afterwards, further adjust the output level) to achieve unobtrusive results—unless, of course, you really want this effect (also see the chapter “Limiter” on page 15).

Limit LED显示了峰值限制器的活动。限幅器的阈值可以设置为12或18dBu，为了达到最佳的操作效果，应该只在很短的时间内亮起。如果LED灯即使在18dB的位置也经常亮起，你必须降低增益值（之后可能还要进一步调整输出电平），以达到不显眼的效果--当然，除非你真的想要这种效果（也见第15页的 "限幅器 "一章）。

Display显示/AD OVL LED

This LED is only active when the optional AD converter module is installed. It displays clipping in the internal AD converter and illuminates at approximately 0.5 dB before 0 dBfs. This LED should never illuminate when using the internal converter. If it does, the output level must be reduced accordingly. For further information on the converter module see page 21, “Optional Digital Output: 24/96 AD converter, model 2376”. With external converters in use, please always check their internal clipping displays.

这个LED灯只有在安装了可选的AD转换器模块时才会激活。它显示内部AD转换器的削波，在0dBfs之前大约0.5dB时亮起。 在使用内部转换器时，这个LED灯不应该亮起。如果它亮了，输出电平必须相应降低。关于转换器模块的进一步信息，请参见第21页 "可选数字输出"。24/96 AD转换器，型号2376"。在使用外部转换器时，请经常检查其内部削波显示。

Solid state and tube stages 固态及电子管级

The solid stage preamp section is based on a fully discrete, balanced instrument amplifier and operates 12 single transistors in class A mode. A sophisticated circuitry ensures a nearly constant frequency response at any gain level. With an impressive slew rate of more than 200V/µs the solid stage is capable to amplify highest frequencies and fastest transients with almost no distortion, which is crucially important to achieve a realistic sound experience. Coupling condensers were used as sparingly as possible to avoid their inherent disadvantages such as diffuse sound, slurring and loss of dynamics. To eliminate DC artifacts, these are replaced by servo circuits operating outside of the audio signal paths.

固体级前置放大器部分是基于一个完全离散的平衡乐器放大器，在A类模式下操作12个单晶体管。一个复杂的电路确保在任何增益水平上都有一个几乎恒定的频率响应。凭借超过200V/µs的出色的回转率，固体级能够放大最高频率和最快的瞬态，而且几乎没有失真，这对于实现真实的声音体验至关重要。耦合冷凝器被尽可能地使用，以避免其固有的缺点，如声音的扩散、骚动和动态的损失。为了消除直流假象，这些假象被工作在音频信号路径之外的伺服电路所取代。

An op-amp subsequently converts the instrument amplifier's output signal into an unbalanced one, which is then fed to the tube. Here an additional +6 dB tube amplification is added, switchable to +12 and +18 dB with the Tube Amp function.

The tube type—a Sovtek 12 AX7 LPS—was also selected after extensive measurements and listening tests. This tube type outclasses the standard 12 AX 7 by far and delivers an open, transparent sound, excellent noise values and is especially reliable. An impedance converter adapts the tube's high-impedance signal to the following stages.

一个运算放大器随后将仪器放大器的输出信号转换为不平衡信号，然后将其送入电子管。这里增加了一个额外的+6dB电子管放大，可通过电子管放大器功能切换到+12和+18dB。电子管的类型--Sovtek 12 AX7 LPS--也是在广泛的测量和听觉测试后选择的。这种电子管类型远远超过了标准的12 AX 7，提供了一个开放、透明的声音，出色的噪音值。一个阻抗转换器将电子管的高阻抗信号调整到以下阶段。

Output Stage 输出级

The output stage can drive very long connections (depending on cable capacities, up to several hundred yards). The maximum output level is at +26 dBu, allowing plenty of headroom to drive subsequent converters.

输出级可以驱动非常长的连接（取决于电缆容量，最长可达几百码）。最大输出电平为+26 dBu，允许有足够的净空来驱动后续转换器。

Class A Instrument Input A类乐器输入

The Instrument Input is a fully discrete impedance converter that also operates in class A mode. It is based on a low-noise field effect transistor that, due to its extremely high input impedance, is especially well suited to this task.

仪器输入是一个完全离散的阻抗转换器，也可以在A类模式下工作。它是基于一个低噪声场效应晶体管，由于其极高的输入阻抗，特别适合这项任务。

Relay switching继电器开关

In order to ensure the shortest possible signal paths, nearly all switching functions are handled by optimally positioned, encapsulated relays with gold-plated contacts (the switches themselves only trigger the relays). Since resistors also greatly affect audio quality, the entire audio signal path utilizes painstakingly selected resistors with 0.1% tolerance.

为了确保最短的信号路径，几乎所有的开关功能都由最佳位置的、带有镀金触点的封装继电器处理（开关本身只触发继电器）。由于电阻也极大地影响了音频质量，整个音频信号路径使用了精心挑选的0.1%的公差的电阻。

Foil condensers 锡箔式冷凝器

The op-amp circuits use premium FKP foil condensers, which sound much more open than ceramic types and provide more natural dynamic response.

运算放大器电路使用优质的FKP铝箔冷凝器，其声音比陶瓷类型的冷凝器更开放，提供更自然的动态响应。

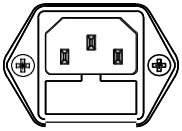
Power Supply

In the case of the power supply, no expense was spared. After all, the power supply is one of the primary factors in the audio quality and overall sound of any device. Just like the best coffee beans in the world will not produce a good cup of coffee with poor water, the best circuits can't produce a great sound with unreliable, inconsistent voltages. The transformer delivers three different voltages, each of which is separately screened and regulated: 250 V anode current for the tube, 48 V for phantom power and 2 x 15 V for the audio signal path.

在电源方面，我们竭尽全力。毕竟，电源是任何设备的音频质量和整体声音的主要因素之一。就像世界上最好的咖啡豆不会用劣质的水煮出一杯好咖啡一样，最好的电路也不能用不可靠的、不一致的电压。 变压器提供三种不同的电压，每一种都经过单独的筛选和调节。 电子管的阳极电流为250V，幻象电源为48V，音频信号路径为2 x 15V。

Critical currents are stabilized via a 100-nF MKP foil condenser, to ensure sufficient current for even the shortest impulses. The transformer is encompassed by double shielding to keep magnetic stray fields to an absolute minimum.

关键电流通过一个100-nF的MKP铝箔电容器进行稳定，以确保即使是最短的脉冲也有足够的电流。变压器被双重屏蔽所包围，以使杂散磁场保持在绝对最低水平。

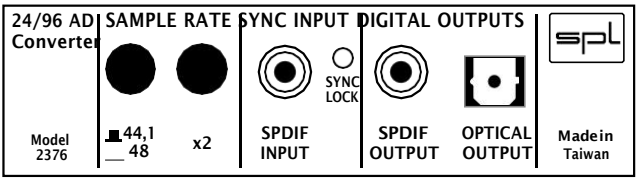


An AC power cord is included for connection to the standard 3-prong IEC connector. The transformer, power cord and IEC connector are VDE, UL and CSA approved. The AC fuse is rated at 315 mA for 220/240 V and 630 mA for 110/120 V.

包括一条交流电源线，用于连接到标准的三孔IEC连接器。变压器、电源线和IEC连接器都经过VDE、UL和CSA认证。交流熔断器的额定电流为：220/240 V为315 mA，110/120 V为630 mA。

- 24-Bit/96kHz A/D converter (after sale upgrades can be done by clients).
- 24-bit/96kHz A/D转换器（售后升级可由客户完成）。
- Lundahl input and output transformers (after sale upgrades by authorized service personnel or SPL only).
- Lundahl输入和输出变压器（售后升级只能由授权服务人员或SPL进行）。

24/96 A/D Converter 转换器



The optional 24/96 Converter module (model 2376) provides a digital output for the GoldMike MK2 in the form of an S/P-DIF output with RCA and optical connectors (in parallel). The converter transmits 24-bit signals.

可选的24/96转换器模块（型号2376）为GoldMike MK2提供数字输出，其形式为RCA和光纤接口的S/P-DIF输出（平行）。 该转换器可传输24位信号。

The module is based on a 24-bit converter by AKM® with a variable sample rate of up to 96 kHz. All common sample rates can be selected (see below). Highly accurate quartz oscillators ensure a clean, low-jitter master clock.

该模块以AKM®的24位转换器为基础，采样率可变，最高可达96kHz。所有常见的采样率都可以选择（见下文）。高精度的石英振荡器确保了干净、低抖动的时钟。

Sample Rate 采样率

The 24/96 AD converter module allows you to select among the four most common sample rates of 44.1, 48, 88.2 and 96 kHz.

Using the 44.1/48 button, select one of the two basic sample rates (out: 44.1 kHz; in: 48 kHz). The x2 button doubles these sample rates to select 88.2 or 96 kHz respectively.

24/96 AD转换器模块允许你在44.1、48、88.2和96kHz这四种最常见的采样率中进行选择。

使用44.1/48按钮，选择两个基本采样率中的一个（输出：44.1 kHz；输入：48 kHz）。x2按钮将这些采样率加倍，分别选择88.2或96kHz。

Dig. Out

The converted S/P-DIF signal is routed in parallel to the RCA and optical outputs. The signal is in professional format with no sample rate data in the status block.

转换后的S/P-DIF信号被平行路由到RCA和光纤输出。该信号为专业格式，状态块中没有采样率数据。

Sync Input 同步输入

The SYNC input allows you to feed an external signal into the converter to control the sample rate (since this is an AD converter, the SYNC Input is no audio signal input). Connect an S/P-DIF output from your master source (e.g. sound card) to the SYNC input. The AD converter will automatically switch to the same sample rate that is received. The 2376 is not equipped to accept Word Clock synchronization.

同步输入允许你将外部信号送入转换器以控制采样率（因为这是一个AD转换器，同步输入没有音频信号输入）。将你的主信号源（如声卡）的S/P-DIF输出连接到SYNC输入。AD转换器将自动切换到收到的相同采样率。2376不具备接受字时钟同步的条件。

The yellow Sync Lock LED illuminates when a valid sync signal is present at the Sync input and the converter is automatically synchronized to the external sample rate.

当同步输入端出现有效的同步信号时，黄色的同步锁定LED灯会亮起，转换器会自动同步到外部采样率。

To prevent interference, the internal oscillators are automatically disabled when an external clock signal is present. If the sync signal is no longer present (e.g. in the case of a dropout), the converter automatically reverts to the sample rate selected via the converter's control switches.

为了防止干扰，当有外部时钟信号出现时，内部振荡器会自动禁用。如果同步信号不再存在（例如，在掉线的情况下），转换器会自动恢复到通过转换器的控制开关选择的采样率。

Lundahl-Transformers变压器

Transformers have characteristics usually associated with other analog components like tubes or coils—they sound "warmer", and punchier especially in the bass and mid area and deliver improved presence without boosting the top end. One reason for this is that transformers cancel out a large amount of odd harmonics (those portions of an audio signal that sound harsh to human ears).

变压器的特性通常与其他模拟元件（如电子管或线圈）有关 --它们听起来更 "温润"，特别是在中低音区域更有冲击力，并在不提高高端的情况下展现更好的存在感。其中一个原因是，变压器抵消了大量的奇数谐波（音频信号中人耳听起来很刺耳的部分）。

Equipping the GoldMike MK2 with transformer-based inputs and outputs means you benefit from their unique characteris- tics.

为GoldMike MK2配备基于变压器的输入和输出意味着你可以从它们的独特特性中受益。

IMPORTANT: The GoldMike MK2's input transformer delivers up to +14 dB of additional passive gain, which must be added to the printed values.

重要提示：GoldMike MK2的输入变压器可提供高达+14dB的额外无源增益，必须将其添加到打印值中。

Frequency response 频率响应		‹10 Hz to 90 kHz (-3 dB)
Input impedances 输入阻抗		
Microphone 麦克风, XLR		2,8 kOhm
Line In 线路输入, TRS		10 kOhm
Instr. In Instr 输入 TRS		1 MOhm
Output impedances XLR and TRS connectors输入阻抗XLR和TRS		
连接器		50 Ohm
THD+N		
Input level 输入级	Gain 增益	
-30 dBu	30 dBu	0,016%
-40 dBu	40 dBu	0,017%
-50 dBu	50 dBu	0,022%
-60 dBu	60 dBu	0,048%
Noise噪音, A weighted A-加权, R=40Ohm Gain 增益		
30 dB		-91,2 dBu
40 dB		-86,6 dBu
50 dB		-78,7 dBu
60 dB		-69,3 dBu
Dynamic range动态范围, 30 dB Gain增益		110 dB
E.I.N		128 dBu
Max. Input level 最大输入级		
Mikrophone麦克风, XLR		+7 dBu
Mikrophone麦克风, XLR +PAD		+28 dBu
Line In 线路输入, TRS connector连接器		+23 dBu
Instr. In TRS connector连接器		+7 dBu
Instr. In TRS connector连接器 +PAD		+14 dBu
Max. output level 最大输出级		
Balanced平衡, XLR+TRS		+26,8 dBu
Unbalanced 不平衡, XLR+TRS		+21,5 dBu
CMRR		
1 KHz, Gain增益 30 dB		›75 dB
10 KHz, Gain增益 30 dB		›75 dB
Power consumption 电力消耗		25 W
Dimensions尺寸 B x H x T 482 x 88 x 210 mm/19.28 x 3.52 x 8.4 in		

Weight 重量	4,1 Kg/9.02 lbs

Specifications subject to change without notice. 规格如有变更，恕不另行通知。

Guarantee 保证

All SPL products come with a two-year manufacturer's guarantee against defects in material or assembly from the date of purchase.

所有SPL的产品都有两年的制造商保证，从购买之日起，对材料或装配的缺陷进行保证。

终端用户通过其分销商或经销商获得两年的担保支持。在这种情况下，请联系您的经销商了解完整的保证条件和服务。

End users are supported in the two-year guarantee through their distributor or dealer. In such cases, please contact your dealer for full guarantee conditions and service.

终端用户通过其分销商或经销商在两年的保修期内得到支持。在这种情况下，请联系你的经销商，了解完整的保证条件和服务。

Direct SPL product support requires product registration. Please fill out the guarantee card enclosed in the package legibly in printed letters and send it directly to SPL.

直接的SPL产品支持需要产品注册。请将包装内所附的保证卡用印刷体字清晰地填写，并直接寄给SPL。

Or use the **online registration** form that may be reached at **www.soundperformancelab.com** (international clients) or **www.spl-usa.com** (US clients). 或使用在线注册表，可通过 **www.soundperformancelab.com**（美国客户）或 **www.spl-usa.com**（美国客户）。