



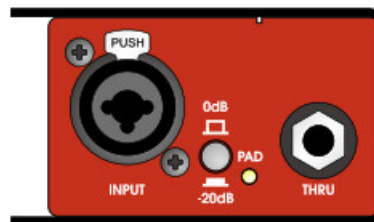
## UNiKA PRO148 Pro Series Audio Interface Single Active Direct Box User Manual

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### USER MANUAL

PRO 148  
PRO SERIES AUDIO INTERFACE  
SINGLE ACTIVE DIRECT BOX  
DESIGN & MADE IN TAIWAN



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## GENERAL PRECAUTION BEFORE USE

Thank you for purchasing the UNIKA PRO SERIES AUDIO INTERFACE. Before using, please read this manual carefully and pay attention to every detail that you must pay attention to. If you use a mixer to connect to this interface, please turn off the mixer power and +48V phantom

power before connecting, and then turn on the power and phantom power after inserting the signal cables. For passive models, please do not turn on the phantom power to avoid leakage or damage the equipment. If using a model with a volume knob, turn the volume knob to the minimum. During use, please do not plug or unplug the wires arbitrarily to avoid signal loss. Please refer to the following instructions for the soldering method of the plugs to ensure the expected level and keep the signal smooth.

If you need further installation or operation guidance, please directly contact UNiKA's dealer or distributor, or write to the following mail address for help:

 [info@unikapro.com](mailto:info@unikapro.com)

## PRODUCT OVERVIEW

PRO 148 is an active single-channel DI box. Unlike traditional DI, PRO 148 uses +48V phantom power instead of the traditional 9V dry cell battery, so users can use it on the mixer or external phantom power supply. Power is supplied to PRO 148, the power supply circuit and the output signal line are shared, and no additional power cord is required. The +48V indicator is set on the upper cover. The +48V circuit specially selects the British OEP PT-4 pulse transformer.

PRO 148 has a built-in UNiKA-PRO

EI30A10E 1+1:1+1 isolation transformer, which has a special copper foil layer and a dedicated ground layer, which allows this device to restore high signal/noise ratio and dynamic sound, and can avoid unnecessary leakage caused by radio frequency interference, ground interference and potential difference. PRO 148 is especially suitable for electronic musical instruments, recording TM studios, and fixed installation projects by using mixers.

The PRO 148 uses a balanced/unbalanced combo socket on the input, and a TRS throughout is convenient for musicians to pass the direct signal to the instrument amplifier. In addition, it is equipped with a 0/-20dB attenuation switch and LED indicator, which is suitable for various types of audio signals with high and low impedance. The output terminal is also equipped with a GND/LIFT button to quickly eliminate ground noise.



### CAUTION

This product has undergone rigorous inspection before leaving the factory. If customers encounter failures during use, please contact your local dealer or distributor for replacement or repairing, do not disassemble the case or replace parts by yourself, which will invalidate the warranty.

For details, please refer to the warranty regulations in the enclosed warranty card, fill in the details, and get a valid stamp or signature of the dealer or distributor.

## PARAMETER TEST CONDITIONS

In the development and manufacturing process, Audio Precision's 2700 series and 500 series are used to test and verify electrical characteristics.

## FEATURES

- Power by external +48V phantom power
- Built-in UNiKA-PRO TM EI30A10E isolation transformer
- Use British OEP PT-4 1:1 audio pulse transformer in the phantom power circuit
- +48V status indicator on the upper cover
- The input socket uses a Combo jack
- Use TRS jack as throughout terminal
- At 0dB input, the set load impedance is 260KΩ, which can clearly show the high-frequency overtones, harmonic and graininess of electric guitars or electric bass
- 50Ω ultra-low impedance output, suitable for various types of mixers and pre-amp equipment

- There is a 0dB/-20dB input signal attenuation switch with a status indicator
- The output is equipped with a GND/LIFT switch

## APPEARANCE PARTS & FUNCTIONS

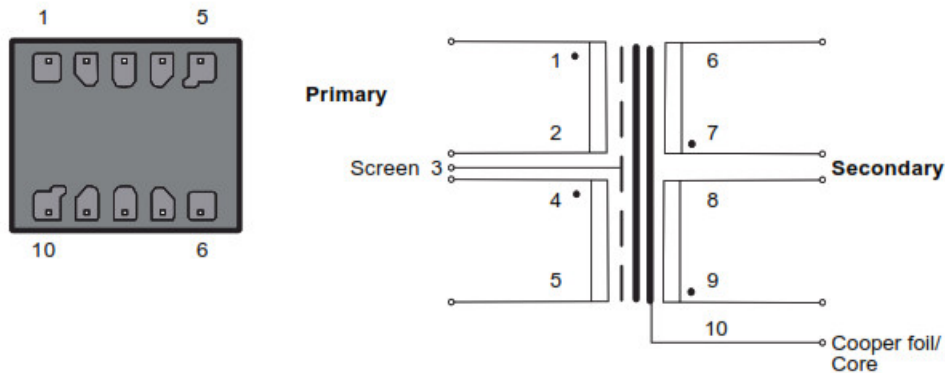


1. Signal output: XLR terminal, isolated balanced output of the transformer, needs to turn on +48V phantom power supply for PRO 148 proper working after connecting to the mixer.
2. Output grounding/floating switch: when the switch is not pressed, the first pin (PIN-1) of XLR is grounded. PIN-1 will be disconnected from the ground after pressing.  
This button should depend on the system. Used in the situation, in order to isolate the ground loop noise or leakage.
3. +48V phantom power indicator: When ISO OUT receives +48V phantom power, the indicator will be shining the blue color.
4. Signal input: One combo jack be able to input balance and unbalance signal by TRS/TS and XLR plug.

5. Input attenuation switch: Provide 0/-20dB two options, when input signals of various impedances and levels. It can be attenuated by 20dB to avoid overload or clipping.
6. Attenuation active indicator: When the PAD attenuation switch is pressed (-20dB), the indicator light will be shining the yellow color.
7. Signal throughout: TRS socket, convenient for musicians musical instrument speakers or other DI and peripheral equipment.

## ISO TRANSFORMER SCHEMATIC

### UNIKA-PRO TM EI30A10E



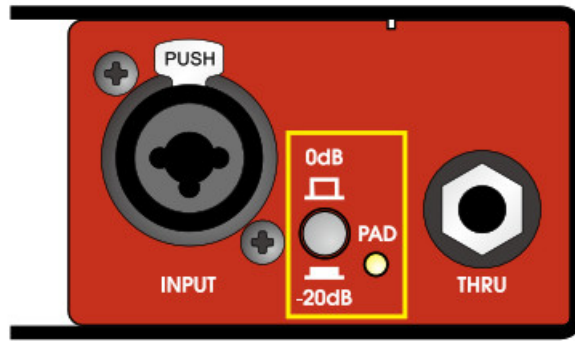
## PULSE TRANSFORMER SCHEMATIC

### OEP PT-4



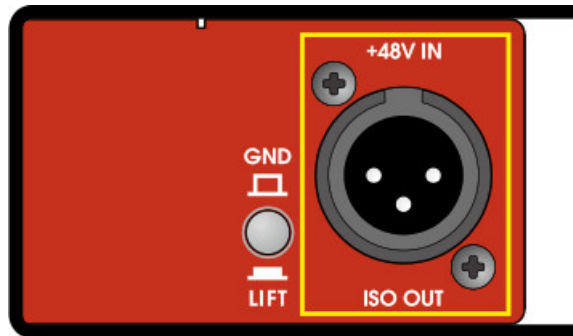
## INPUT PAD ATTENUATION

The most widely used DI box is to connect electronic musical instruments, the sound sources of A/V equipment and computers, convert their output signals into balanced signals, and then extend the transmission distance. The most ideal state is to set the attenuator to 0dB position (button up) for a musical instrument. For some other types of signals, you can press the button to make the signal is attenuated by 20dB to avoid clipping caused by signal overload. When the button is pressed, the PAD indicator on the right will light up.



## POWER SUPPLY

PRO 148 is an active DI box and requires +48V phantom power. It can work normally when it is powered, but no additional power supply is required. Just use balanced wires to connect the device to the mixer's input channel, and turn on the +48V power switch of the mixer, similar to connect a condenser microphone to the mixer.



When the +48V power supply is supplying properly, the +48V ACTIVE indicator light on the upper cover will light up.



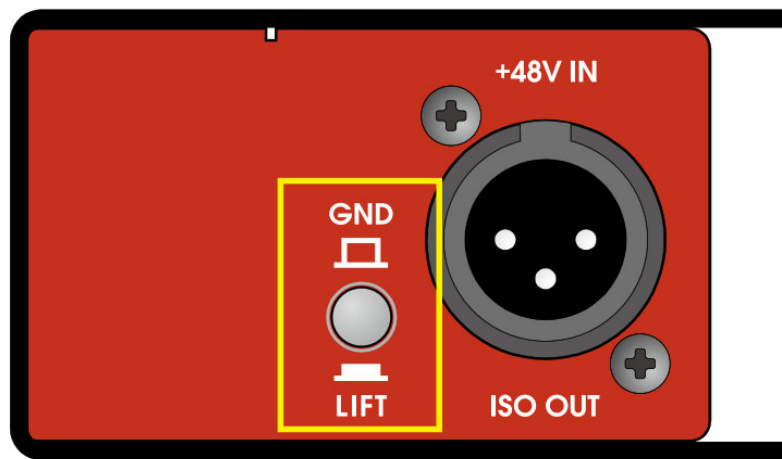
Before connecting the device, do not turn on the +48V switch of the mixer.



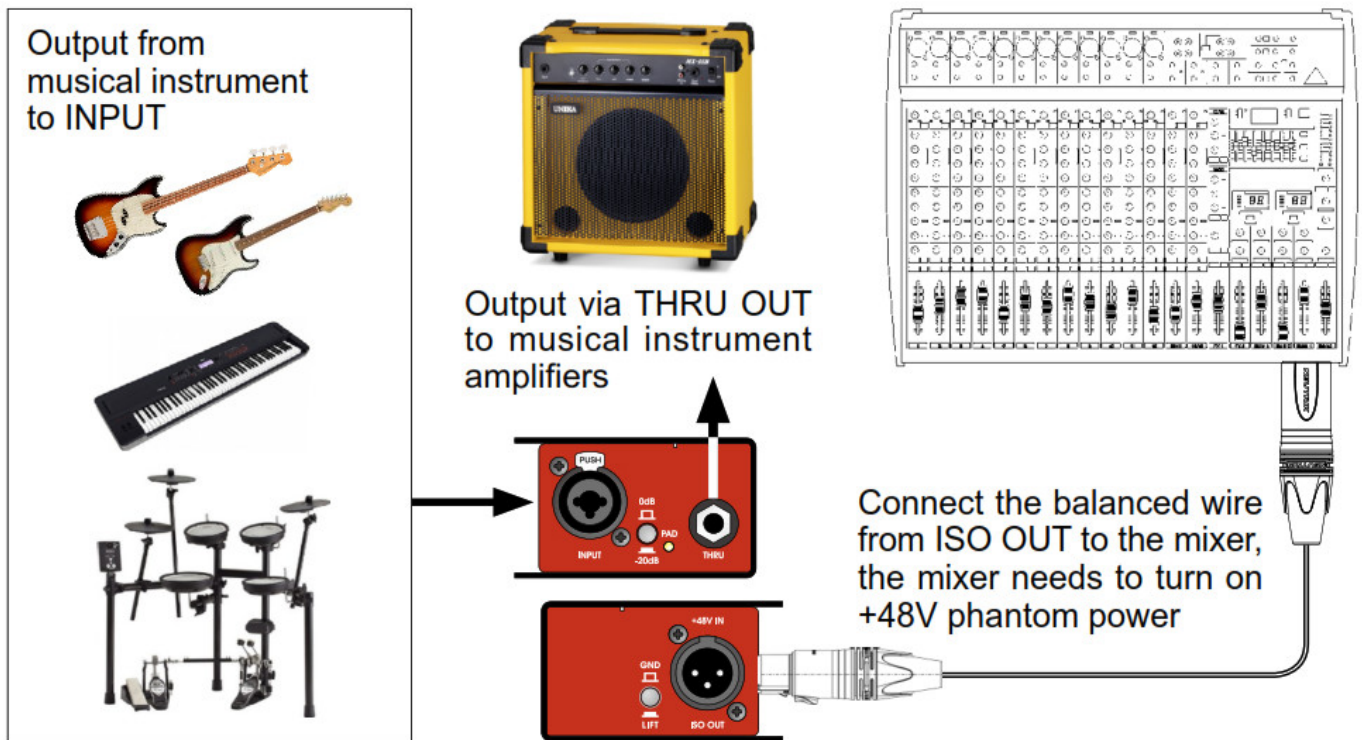
## ELIMINATING GROUND LOOP NOISE

The built-in channel-independent balanced isolation transformer has solved the potential difference leakage problem. When the system causes a ground loop due to poor wiring, the noise can be eliminated through the GND/LIFT button.

The GND/LIFT button determines whether pin 1 of the output XLR is grounded, grounded when it bounces, and disconnected from ground when pressed.

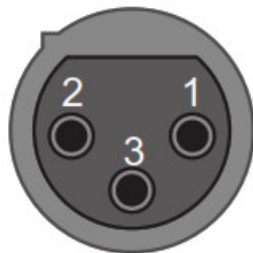


## CONNECTION GUIDE



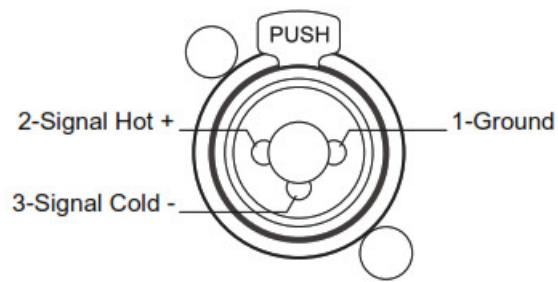
XLR-Female  
connector

XLR-Male  
output jack



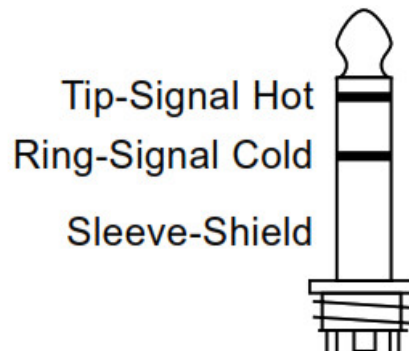
1-Shield pin    2-Hot pin    3-Cold pin

## XLR-TRS Combo input

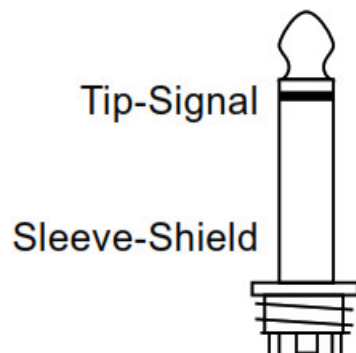


XLR-1/4"TRS Combo socket for direct input

The unbalanced connection, pin-2 is hot, pin-3 is shield paralleled with pin-1.



TRS Balance plug



TS Unbalance plug

## SPECIFICATIONS

(Specifications are subject to change without notice.)

**PRO 148**



Circuit principle	Active low-noise op-amp with Transformer balance output
Input connector	1 x Combo
Thru connector	1 x TRS
Input pad switch/indicator	0/-20dB push button with LED
Power supply	+48V Phantom power through output connector with LED indicator on top cover
Output connector	1 x Male XLR through ISO Transformer
Output GND/LIFT switch	Push button
Input impedance	260K $\Omega$ / 0dB, 50K $\Omega$ /-20dB
Output impedance	50 $\Omega$
Max. input level before clipping	+10dB
Max Output level	+10dB
Frequency response	20Hz-20KHz, +0.3/+0.6dB
S/N ratio @20Hz~20KHz un-weight	>95dB
T.H.D. @1KHz 0dBV output	<0.02%
Transformer Ratio	1:1+1:1
Chassis	1.6mm/1.2mm steel cabinet and chassis
Surface finished	Durable complex painting
Dimension (W x D x H)	78 x 124 x 46 mm
Weight	0.55kg
Shipping weight	0.65kg
Packing per carton	20pc/14kg
Shipping dimension per carton	350 X 310 X 207 mm

## EU DECLARATION OF CONFORMITY



### 1. Equipment

Product name	Single active direct box
Model	PRO-148
EAN Code	4.71E+12

2. Manufacturer

Manufacturer	UNiKA Electronic Co.,Ltd.
Address	6F, No.168, Xinhua 2nd Roadn, Nei-Hu, Taipei, Taiwan

3. This declaration of conformity is issued under the sole responsibility of the manufacturer.
4. Object of the declaration, Product: Direct box for musical instrument and A/V device.
5. The object of the declaration described in point 4 is in conformity with the relevant Union harmonization legislation 2014/30/EU The Electromagnetic Compatibility Directive
6. References to the relevant harmonized standards used, or references to the specifications in relation to which conformity is declared:

EMI:	
EN 55032:2015	IEC 61000-4-3:2006+A1:2007+A2:2010
EN 61000-3-3:2014	IEC 61000-4-4:2012
EN 61000-3-3:2013	IEC 61000-4-5:2014+A1:2017
EMS:	IEC 61000-4-6:2013/CORE1:2015
EN 55035:2017	IEC 61000-4-8:2009
IEC 61000-4-2:2008	IEC 61000-4-11:2-4+A1:201

7. Where applicable, the above equipment will be tested and revision of existent certificate by WH Technology Corp. (TAF Accreditation Number:2954) for compliance With EMC requirements set forth in the EUROPEAN COUNCIL DIRECTIVE 2014/30/EU and the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance.
8. The technical file is available from the manufacturer at the address above

Signed for and on behalf of:	UNiKA Electronic Co.,Ltd.
Place of issue:	Taipei
Date of issue:	th May th , 2021

**Name: Yung-Ho Hsu**  
Position: Marketing & Product director



Signature:

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## Documents / Resources

	<p><a href="#">UNiKA PRO148 Pro Series Audio Interface Single Active Direct Box</a> [pdf] User Manual PRO148, Pro Series Audio Interface Single Active Direct Box</p>
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