Project Lone Pine

LP-UNF
ULTRA-NEARFIELD
Studio Monitoring System

Users' Guide

Table of Contents

Important Safety Information

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Power the product down, and unplug it from power before cleaning.

7. Clean only with a dry cloth.

8. Do not block any ventilation openings.

9. Keep ventilation opening free of dust or other matter.

10. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

11. No naked flame sources (such as lighted candles,) should be placed on the product.

12. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades, with one blade wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

13. Protect the power cord from being walked on or pinched, particularly at plugs, receptacles, and at the point where they exit the apparatus.

14. Use only attachments and/or accessories specified by the manufacturer.

15. Use only with a cart, stand, tripod, plate, bracket, or table specified by the manufacturer. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

16. Unplug this apparatus during lightning storms or when unused for long periods of time.

17. Refer all servicing to qualified service personnel. Servicing is required when:
    A. The apparatus is damaged in any way
    B. The power supply cord or plug is damaged
    C. Liquid or other objects have fallen into the product
    D. The product has been exposed to rain or moisture
    E. The product does not operate normally
    F. The product has been dropped

18. This apparatus shall not be exposed to dripping or splashing.

19. No object filled with liquids, such as a vase or a glass, should be placed on the apparatus.

20. This apparatus is to be used in a moderate climate. Do not expose to extremely high or low temperatures.

21. High sound pressure in excess of 85 dB can cause hearing damage and/or loss. Do not expose yourself to high sound pressure levels.

22. The power cord must be connected to a Mains socket/outlet with earthing connection.

23. This equipment is not suitable for use in locations where children are likely to be present.

24. This product is intended for use only with the adaptor provided:

Manufacturer: Panfore Ltd
Model: P24D3000G

Important Safety Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

" FCC RF Radiation Exposure Statement

Caution: To maintain compliance with the FCC's RF exposure guidelines, place the unit at least 20cm from nearby persons."

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

This device may not cause interference.
This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licencecontenu dans le présentappareilestconforme aux CNR d'Innovation, Sciences et Développementéconomique Canada applicables aux appareils radio exempts de licence. L'exploitationestautorisée aux deux conditions suivantes :

L'appareil ne doit pas produire de brouillage;
L'appareildoit accepter tout brouillageradioélectriquesubi, mêmesi le brouillageest susceptible d'encompromettre le fonctionnement.

Mains plug is used as a disconnect device and it should remain readily operable during intended use. In order to disconnect the apparatus from the mains completely, the mains plug should be disconnected from the mains socket outlet completely.

The lightning bolt with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operation and maintaining (servicing) instructions in the literature accompanying the appliance.

About Your Speakers

Congratulations on your Kali Audio LP-UNF studio monitoring system! The LP-UNF is a unique product that creates a professional mixing environment at arm's length, allowing you to work effectively in places where space and the ability to make noise are at a premium. With the LP-UNF, if you have space to sit down, you have space for a studio.

What Does LP-UNF Mean?

The LP-UNF is part of our Project Lone Pine series of loudspeakers, and it shares much of its technology with our best selling LP-6 and LP-8 V2 studio monitors. Project Lone Pine is named after a town in the Eastern Sierra Mountains in Califoria where climbers depart to summit Mt. Whitney, the highest mountain in the continental US.

UNF stands for "Ultra-Nearfield." The LP-UNF achieves reference level of 85 dB at just .8 meters, or arm's length. So you experience the mix to the fullest possible extent from the listening position, but you don't bother others around you.

Features

Desktop Monitoring and Boundary EQs

The LP-UNF has been developed specifically as a desktop monitoring system. As such, the LP-UNF's tuning takes reflections from your desk into account, providing neutral sound in what is normally a difficult acoustic environment. Combined with the boundary EQs, which can be adjusted for the system's proximity to walls, this allows for reliable monitoring in a variety of tight spaces.

A full diagram of the boundary EQs and other user-definable parameters can be found on pages 14-17 of this manual.

Robust Inputs

The LP-UNF feautres TRS, RCA, USB-C, and Bluetooth 5.1 inputs, allowing you to easily connect to whatever gear you're already using. Full specifications for all these inputs can be found on pages 9-11 of this manual.

Acoustic Technology

The LP-UNF is based on our best-selling LP-6 and LP-8 V2 speakers. A 3-D imaging waveguide is employed to create a detailed, lifelike stereo image where all of the elements of the mix can be clearly perceived in space. The large front-firing port tube uses a unique, fluid dynamics derived geometry that eliminates port noise and compression. This allows you to place the speakers against walls without worrying about adverse effects on the port's performance.

The LP-UNF's tweeter is the same 1-Inch textile dome used on the other LP- and even our IN-Series speakers. A high-excursion 4.5-Inch woofer handles the low end, comfortably providing frequency response below 40 Hz.

Inputs and Controls
Front Panel

1

Volume-Down Control

The minus sign is a capacative touch control. Press it to lower output level by one step. Hold it to progressively lower output level to -∞ (silent).

2

Volume-Up Control

The plus sign is a capacative touch control. Press it to raise output by one step. Hold it to progressively raise output level to +6 dB (maximum ouput).

3

LED Indicator

Indicates power status, output level, mute, Bluetooth pairing mode, fault, and other functions. A full listing of LED statuses and what they mean can be found on the next page.

Inputs and Controls
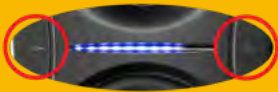## Front Panel
### LED Indicator

Center LED On: Power On

The single center LED indicates that the LP-UNF is powered on. If you do not wish to have a constant power indication, you can turn this LED off by flipping DIP switch #8, on the back of the speaker, up.

Output Level

Press either the "+" or "-" sign on the front of the unit to display current output level. The output level will not change on the first press. Quickly press either the "+" or "-" signs to change the output level by one step. Each of the 11 LEDs on the front panel has 3 level steps (dim, medium, bright) for a total of 34 output level steps. A full chart of how much each step changes the output level may be found on page 20.
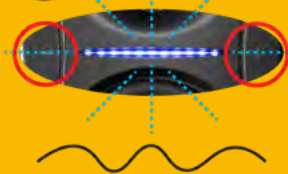
Mute

Quickly press both the "+" and "-" signs at the same time. The speaker will mute, and the front LEDs will pulse between on and off, indicating Mute status. Press either the "+" or "-" sign again to unmute the speaker.

Bluetooth Pair

Hold both the "+" and "-" signs for 3 seconds. The front LEDs will flash on and off, indicating that the speaker is in Bluetooth pairing mode. Find the LP-UNF in the Bluetooth menu on your device to pair.

Bluetooth Unpair
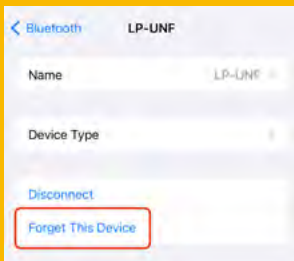
Bluetooth is not a professional audio protocol. If you're finding that Bluetooth functionality is negatively affecting the function of the LP-UNF, you may disable the Bluetooth connection. To do this, pair the LP-UNF with your device. From your device's Bluetooth menu, forget the LP-UNF. Forgetting the LP-UNF while it is paired to a device will disable Bluetooth, and the Bluetooth antenna will remain off until the LP-UNF is once again put into pairing mode.

Inputs and Controls
## Front Panel
LED Indicator

Limiter Indication

When the limiter engages, the front LED will flash during playback. If the limiter is engaging on only one channel, it will flash on that side. The limiter prevents harmful voltage from reaching sensitive components in your loudspeaker. It is advised to lower the output level of your system if you see the limiter engage.

Speaker Channel Assignment

By default, the primary speaker will play the left channel of audio. If you wish to change this, you can set the primary speaker to play the right channel of audio. To do this:

1. Using the power switch (4), power the system down. Wait until no LEDs are illuminated.

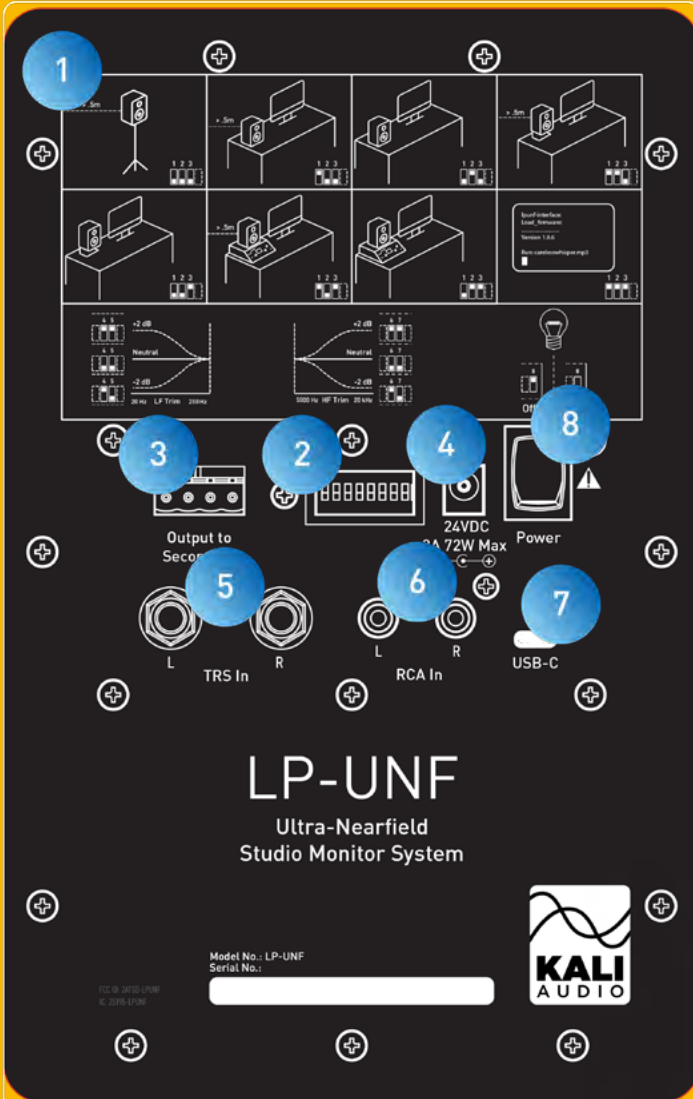2. Power the system back on. WAIT until all the LEDs on the front are illuminated.
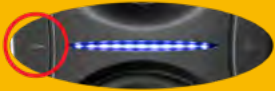
3. When all the LEDs on the front are illumated, press and hold the "-" sign. After about 5 seconds, one half of the LEDs will flash, indicating which channel (left or right) the primary speaker will play.

4. If the channel indicated is not the channel you would like to play through the primary, repeat steps 1-3. The LEDs should flash on the opposite side the second time.

5. Turn the unit off and on one more time for the change to take effect.

Inputs and Controls

LP-UNF
Ultra-Nearfield
Studio Monitor System

Output to Secon...
24VDC
3A 72W Max
Power

L   R
TRS In

L   R
RCA In

USB-C

Model No.: LP-UNF
Serial No.:

FCC ID: SM1SD-LPUNF
IC: 25FIS-LPUNF

KALI
AUDIO

LP-UNF
Ultra-Nearfield
Studio Monitor System

Input From
Primary

Designed in California
Made in China

CAUTION
AVIS:RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR

Model No.: LP-UNF
Serial No.:

Inputs and Controls

(1) DIP Switch Quick Reference Guide

The quick reference guide on the back of the speaker can help you set the DIP switches to the appropriate positions for your application without needing to consult this manual.

(2) DIP Switches

The DIP switches control the Boundary EQ, HF and LF Trim, and power to the RCA input. A full explanation of the operation of the DIP switches can be found on page 12.

(3) Output to Secondary

Plug the included 4-prong connector (10) into this output, and plug the other end into "Input from Primary" (9) on the passive unit. It does not matter which end goes into which speaker.

(4) Power Input

Connect the provided power supply (12) to this input.

(5) TRS Inputs

The TRS input is for use with professional audio devices like mixers, interfaces and controllers. Be sure to use TRS cables and not TS cables for best results. Consumer devices that use 3.5 mm or RCA cables should be routed through the RCA inputs, and not the TRS inputs.

(6) RCA Input

The RCA input is for use with consumer devices like record players, laptops, smart phones, and media players. Commonly, the playback device will either have an RCA or a 3.5 mm (Aux) output. Cables from either of these outputs to RCA are easy to find.

(7) USB-C Input

The USB-C input allows you to connect to a computer or a tablet without needing a seperate audio interface. Use with an Apple iPad will require a camera adapter kit, sold seperately. Use with certain smartphones may be possible, but is not supported.

(8) On/Off Switch

Power the speaker on and off. Be sure to power the speaker off when connecting or disconnecting the power cable, during lighting storms, or during extended periods of disuse.

Inputs and Controls

9

Input from Primary

Plug the included Phoenix connector (10) into this output, and plug the other end into "Output to Secondary" (3) on the powered unit. It does not matter which end goes into which speaker.

10

4-Prong Connector

Plug one end of this cable into into "Output to Secondary" (3) on the powered unit. Plug the other end into "Input from Primary" (9) on the passive unit. It does not matter which end goes into which speaker.

This cable should be long enough to accomodate ultra-nearfield use as Kali has prescribed. Longer cables and replacement cables are available at KaliAudio.com.

11

Local Power Cable

This features an IEC Connector, and the LP-UNF ships with whatever plug your country uses. If you use the LP-UNF in a place with a different plug, you may purchase a local IEC cable. The IEC connector connects to the power supply (12) and the prongs go into an AC power outlet.

12

24V Power Supply

This is a 3A, 24V DC 72W power supply. Plug the barrel connector into the power input (4) on the powered unit, and connect the local power cable (11) to the prongs on the other end. If you lose your power supply, you may replace it with another power supply of the same electrical specification. The barrel connector on the power supply is 2.5mm wide by 5mm deep, and the pin is positive.

Boundary EQs & DIP Switches

One of the most innovative features of the Lone Pine Series monitors are the boundary compensation EQs. These EQs were made to compensate for low frequency interactions that the speakers will have with various surfaces in many common placements.

Each set of dip switches controls one aspect of the speakers performance, independent of the other switches. Switches 1-3 control the boundary compensations EQs. Switches 4 and 5 control the LF Trim. Switches 6 and 7 control the HF Trim. Switch 8 controls the power indication LED. For this reason, the explanations of the different dip switch settings will only reference the set of switches currently applicable.

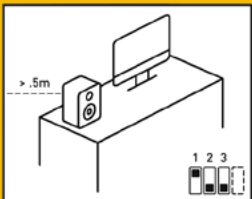## Switches 1-3: Boundary Compensation EQs

Position 1: Free Space
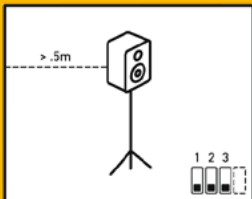
The Speaker is on a monitor stand, at least .5 meters (about 20 inches) away from any walls. **This is the ideal position for the loudspeaker.**
> Switch 1: DOWN
> Switch 2: DOWN
> Switch 3: DOWN

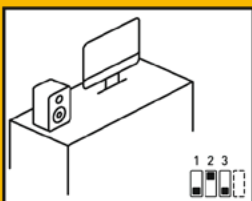### Position 2: On a Desk, Away from Walls

The speaker is on a desk or table, and is more than .5 meters (20 inches) from a wall.
> Switch 1: UP
> Switch 2: DOWN
> Switch 3: DOWN

Position 3: On a Desk, Against a Wall

The speaker is on a desk or table, and is as close to a wall as possible without pinching any cables.
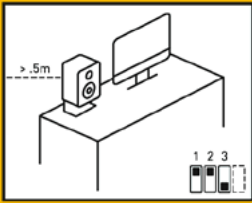> Switch 1: DOWN
> Switch 2: UP
> Switch 3: DOWN

Boundary EQs & DIP Switches
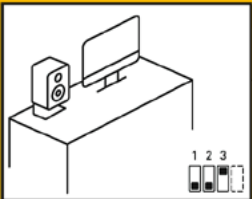
Switches 1-3: Boundary Compensation EQs

Position 4: On a Desk, On Monitor Stands, Away from Walls

The speaker is on a desk or table, on monitor stands, and is more than .5 meters (20 inches) from a wall.

Switch 1: UP
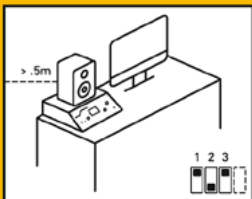Switch 2: UP
Switch 3: DOWN

Position 5: On a Desk, On Monitor Stands, Against a Wall.

The speaker is on a desk or table, on monitor stands, and is as close to a wall as possible without pinching any cables.
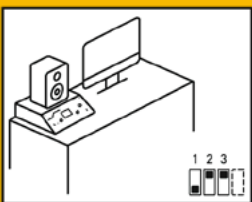
Switch 1: DOWN
Switch 2: DOWN
Switch 3: UP

Position 6: On a Recording Desk, Away from Walls

The speaker is on a recording desk with built-in monitor risers, and is more than .5 meters (20 inches) from a wall.

Switch 1: UP
Switch 2: DOWN
Switch 3: UP

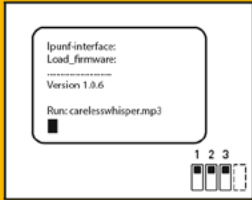### Position 7: On a Recording Desk, Against a Wall

The speaker is on a recording desk with built-in monitor risers, and is as close as possible to a wall without pinching any cables.

Switch 1: DOWN
Switch 2: UP
Switch 3: UP

Boundary EQs & DIP Switches

Switches 1-3: Boundary Compensation EQs

Position 8: Programming Mode

The LP-UNF has the ability to update firmware over the USB-C connector. From time to time, Kali will release new firmware that improves performance and/or adds functionality to the LP-UNF. Be sure to register your LP-UNF at kaliaudio.com/register so you can stay up-to-date on the latest firmware.

When in programming mode, half of the LEDs on the front panel will illuminate.

Switch 1: UP
Switch 2: UP
Switch 3: UP

lpunf-interface:
Load_firmware:

Version 1.0.6

Run: carelesswhisper.mp3

1 2 3

Boundary EQs & DIP Switches

Switches 4&5: Low Frequency Trim

The Low Frequency trim will add or subtract 2 dB from the Low Frequency response of the speaker. This can be done as a matter of personal taste, or if the room you're mixing in requires additional adjustment beyond what is offered by the boundary compensation EQs.
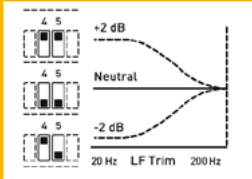
Switch 4: Engage LF Trim
DOWN: LF Trim Disengaged
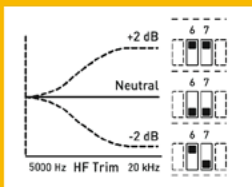UP: LF Trim Engaged

Switch 5: Adjust LF Trim
DOWN: -2dB in Low Frequencies
UP: +2 dB in Low Frequencies
Note: Switch 5 does not function independent of switch 4. If switch 4 is DOWN, the LF trim will be DISENGAGED and switch 5 will have no effect.

Switches 6&7: High Frequency Trim

The High Frequency trim will add or subtract 2 dB from the High Frequency response of the speaker. This can be done as a matter of personal taste, or if the room you're mixing in requires additional adjustment beyond what is offered by the boundary compensation EQs.

Switch 6: Engage HF Trim
DOWN: HF Trim Disengaged
 UP: HF Trim Engaged

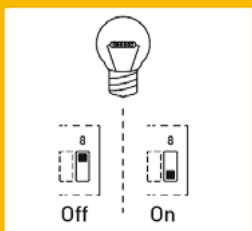### Switch 6: Adjust HF Trim
DOWN: -2dB in High Frequencies
UP: +2 dB in High Frequencies
Note: Switch 7 does not function independent of switch 6. If switch 6 is DOWN, the LF trim will be DISENGAGED and switch 7 will have no effect.

Switch 8: Power LED

By default, the center LED on the powered unit will remain lit whenever the unit is powered on. If you wish to turn it off, set switch 8 UP.

Full Specifications

|	
Self-Powered:	Yes
Amplifier Class:	D
HF Power Per Channel:	40W
LF Power Per Channel:	40W
HF Driver:	1-Inch Textile Dome Tweeter
LF Driver:	4.5-Inch High-Excursion Woofer
Crossover:	1950 Hz
Frequency Response: (-10dB)	39 Hz- 25 kHz
Frequency Range: (+/-3dB)	54 Hz - 21 kHz
Recommended Listening Distance:	.8 meters
Max SPL: (Peak at 1M)	103 dB
System THD: (85dB SPL at .8M)	<2% from 65 Hz to 1000 kHz <1% from 1 kHz to 2 kHz <0.5% above 2 kHz
Stereo Inputs:	RCA (Unbalanced, -10dBV) Bluetooth (Digital) USB-C (Digital) TRS (Balanced, +4dBu)
Bluetooth Version	5.1
USB-C Conversion:	24-bit/48kHz
Supported USB devices:	PCs running Windows 10 or later Macs running Apple Silicon and OS 13.0 or later Apple iPads (with Camera Kit)
Trims:	LF & HF +/-2dB
Speaker Height:	10 Inches (25.4 cm)
Speaker Width:	6.5 Inches (16.4 cm)
Speaker Depth:	7.4 Inches (18.6 cm)
Speaker Weight (Primary/Secondary):	7.1 lbs (3.2 kg)/6.6 lbs (3 kg)

First Time Setup
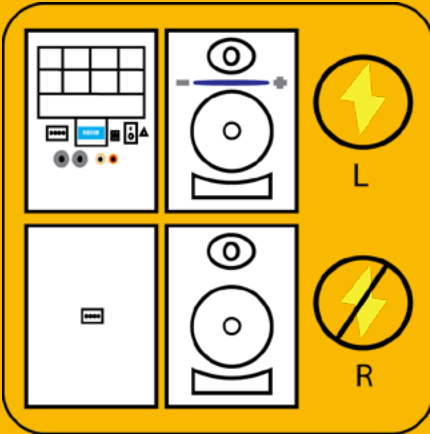
1. Unbox the speakers

Take the speakers out of the box. Note that one speaker is powered and one is passive. By default, the powered speaker should sit on your left. If you'd prefer that this speaker played the right channel, refer to the instructions on page 8.
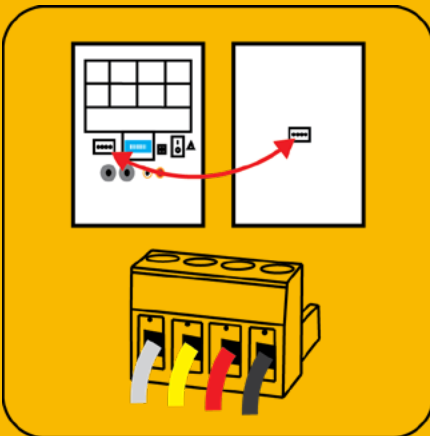
2. Connect the speakers

Use the included 4-prong connector (see page 9) to connect the speakers to each other. It does not matter which end of the 4-prong cable goes to which speaker. The included cable should be long enough to use the LP-UNF as presribed, but if you would like a longer cable, they are available to purchase at kaliaudio.com
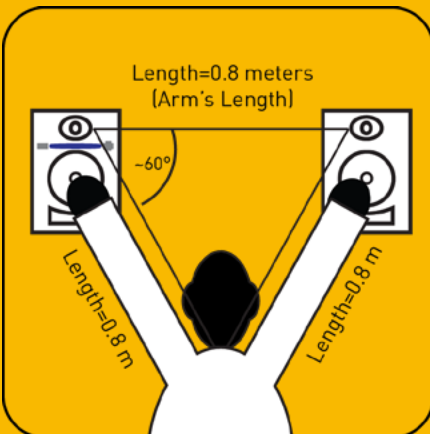
3. Set up your listening space

Set the speakers up so that the tweeters are ~0.8 meters (about arm's length) from your ears. They should be set in an equilateral triangle between each other and your head, so that they are also ~0.8 meters from one another.
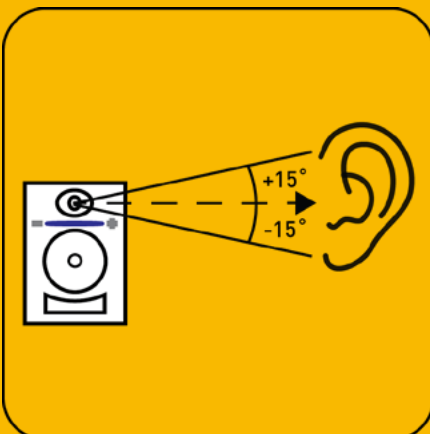
4. Finesse setup

Aim the speakers so that the tweeters are pointing within 15 degrees of your ears vertically. You may wish to adjust their horizontal "in and out" angle so that they're aimed right at your ears, or just past. A lot of users like them to be aimed just past their ears.

Troubleshooting

1. I opened the speaker, and it is damaged.
If you received a speaker that is obviously damaged, please contact your dealer immediately.

2. The speaker is making no sound.
- Is the speaker plugged in?
- Is the speaker turned on? There should be a blue LED on the front of the powered unit if it's on. If this light is off, the speaker may be turned off or the LED might be disengaged with the DIP switches.
- Is the volume turned up?
- Are all cables plugged in to both your playback device and the speaker?
- Are you passing audio via your playback device?

3. The speaker sounds distorted.
- Is the speaker playing too loud? Turn down the volume on the front of the speaker. If the distortion goes away, you may be playing the speaker too loud. Besides the problem of distortion, this can be damaging to your hearing if you are close to the speaker.
- Is your source too loud? Turn the volume down at your source device. If the distortion goes away, you may be overdriving the input. If this is the case, turn the volume of the speaker up and turn your source down.

4. I hear cracks, hums, or buzzing.
- Are you using RCA?
    a. If "yes," be advised that RCA is an unbalanced connection, and is prone to picking up noise as signal travels through the cable. This is especially true if you are using very long RCA cables.
- Is the speaker close to electronics like a television, wireless router, phone, motor, or radio? If so, these can interact with the speaker's magnet in ways that cause unwanted noise. Try moving the speaker at least .5 Meters (20 inches) from any such devices.
- Are there loose objects in the room that may be buzzing with the bass? Low frequencies can cause objects in a room to vibrate loudly. Make sure that small, hard objects like screws and other hardware are secure.
- Do you hear the offending sound with nothing plugged into the inputs? If no, there is an issue elsewhere in your signal chain that you'll need to troubleshoot.

5. I'm having connection issues via USB-C with my computer.
- Turn your LP-UNFs off and turn them on again. If the problem persists:
    - If you're using a Windows computer, restart the computer. Make sure that you have the newest audio drivers installed.
    - If you're using a Mac computer, restart the computer. Make sure that you are running the most recent operating system.

If you're still having trouble, contact Kali's customer service for help!

Warranty

What does this warranty cover?
This warranty covers defects in materials or workmanship for a period of one year (365 days) after the purchase date of the product.

What will Kali do?
If your product is defective (materials or workmanship,) Kali will replace or repair the product at our discretion - free of charge.

How do you initiate a warranty claim?
Contact the retailer from whom you bought the product to initiate a warranty process. You will need the original receipt showing the date of purchase. The retailer may ask you to provide specific details about the nature of the defect.

What is not covered?
The following cases are NOT covered by this warranty:
- Damage from shipping
- Damage from dropping or otherwise mishandling the speakers
- Damage resulting from failure to heed any of the warnings outlined on pages 3 and 4 of the user's manual, including:
    1. Water damage.
    2. Damage from foreign substances or substances entering the port tube.
    3. Damage resulting from an unauthorized person servicing the product.
    4. Damage resulting from the product being left plugged in during an elecrical storm.

The warranty applies only in the United States. International Customers should contact their dealer about their warranty policy.

Appendix A
Output Level Steps

Step	LEDs	Level Change	Resulting Level
0	All Off	-	-∞
1	1 dim	+110 db/-2 dB	-30 dB
2	1 medium	2 dB	-28 dB
3	1 bright	2 dB	-26 dB
4	1 bright, 2 dim	2 dB	-24 dB
5	1 bright, 2 medium	2 dB	-22 dB
6	1-2 bright	1 dB	-21 dB
7	1-2 bright, 3 dim	1 dB	-20 dB
8	1-2 bright, 3 medium	1 dB	-19 dB
9	1-3 bright	1 dB	-18 dB
10	1-3 bright, 4 dim	1 dB	-17 dB
11	1-3 bright, 4 medim	1 dB	-16 dB
12	1-4 bright	1 dB	-15 dB
13	1-4 bright, 5 dim	1 dB	-14 dB
14	1-4 bright, 5 medium	1 dB	-13 dB
15	1-5 bright	1 dB	-12 dB
16	1-5 bright, 6 dim	1 dB	-11 dB
17	1-5 bright, 6 medium	1 dB	-10 dB
18	1-6 bright	1 dB	-9 dB
19	1-6 bright, 7 dim	1 dB	-8 dB
20	1-6 bright, 7 medium	1 dB	-7 dB
21	1-7 bright	1 dB	-6 dB
22	1-7 bright, 8 dim	1 dB	-5 dB
23	1-7 bright, 8 medium	1 dB	-4 dB
24	1-8 bright	1 dB	-3 dB
25	1-8 bright, 9 dim	1 dB	-2 dB
26	1-8 bright, 9 medium	1 dB	-1 dB
27	1-9 bright	1 dB	0 dB
28	1-9 bright, 10 dim	1 dB	+1 dB
29	1-9 bright, 10 medium	1 dB	+2 dB
30	1-10 bright	1 dB	+3 dB
31	1-10 bright, 11 dim	1 dB	+4 dB
32	1-10 bright, 11 medium	1 dB	+5 dB
33	All bright	1 dB	+6 dB