

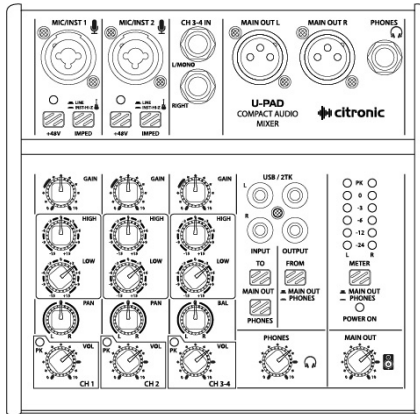
U-PAD

Compact Mixer with USB Interface

Item ref:

170.879UK

User Manual



Version 1.1



Caution: Please read this manual carefully before operating
Damage caused by misuse is not covered by the warranty

Introduction

Thank you for choosing a Citronic U-PAD mixer as part of your recording setup or stage sound system. This product has been developed to provide a wide range of facilities for professional and reliable sound reinforcement. Please read and keep this manual to achieve the best results from your purchase and avoid damage through misuse.

SAFETY SYMBOL AND MESSAGE CONVENTIONS



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

AVIS
RISQUE DE CHOC
ELECTRIQUE NE PAS
OUVRIR



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

Warning

To prevent the risk of fire or electric shock, do not expose any components to rain or moisture. If liquids enter the housing, stop using immediately, allow the unit to dry out and have it checked by qualified personnel before further use. Avoid impact, extreme pressure or heavy vibration to the case.

No user serviceable parts inside – Do not open the case – refer all servicing to qualified service personnel.

Safety

- Use 5Vdc power from a host computer or USB power supply with 1A or more output.
- Avoid ingress of water or particles into any part of the housing. If liquids are spilled on the console, stop using immediately, allow the unit to dry out and have checked by qualified personnel before further use.

Placement

- Keep the console out of direct sunlight and away from heat sources.
- Do not place heavy objects on top of the control surface.
- Allow adequate space for airflow and keep the console away from damp or dust.

Cleaning

- Use a soft cloth with a neutral detergent to clean the housing as required.
- A soft brush can be used to clear debris from between controls without damaging them.
- Do not use solvents for cleaning the unit.

Console layout

The U-PAD mixing console has 2 mono input channels which can accept a balanced microphone input or switchable line/instrument input. There is also a stereo input for playback devices or line level instruments.

All preamps have studio grade, low noise architecture for the cleanest possible path throughout the signal chain. Console layout is set out in distinct sections to simplify operation.

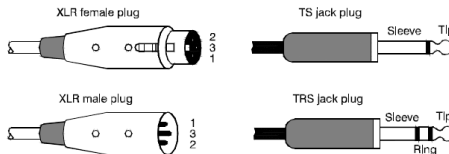
The following pages of this manual are divided up into these stages to explain the details and function of each control.

Channel inputs

Channel 1 and 2 inputs are provided as XLR or 6.3mm jack on combo sockets.

If an XLR is plugged in, this will be connected as low impedance (microphone) level. If a 6.3mm plug is used, this will be connected as either line or instrument level (switchable)

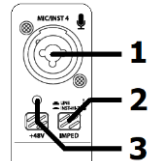
The connections for these inputs are assigned as follows.



Mic / Line / Instrument Input

1. Combo input Connect a balanced microphone via XLR connection or a line level or instrument input via 6.3mm plug. An unbalanced XLR can be connected provided that +48V phantom power is not used. Wired as follows.

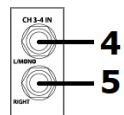
Balanced	Pin 1 = Ground	Pin 2 = Signal +	Pin 3 = Signal -
Unbalanced	Pin 1 = Ground	Pin 2 = Signal +	Pin 3 = Ground



2. IMPED switch Press this button in to set the input impedance to instrument level or leave the button in the up position for a line level input. (instrument level is usually for pickups, such as those on a guitar. Electronic keyboards usually produce a line level output)
3. +48V phantom Press this button in to enable +48V phantom power to the XLR and the LED indicator will light. This provides power to some condenser microphones and DI boxes. Do not use with unbalanced XLR connectors. This does not affect any jack inputs.

Stereo Input

4. L/MONO Line level 6.3mm jack input. Mono if connected alone or left side if right side input is connected.
5. RIGHT Line level 6.3mm jack input for right side of stereo input.

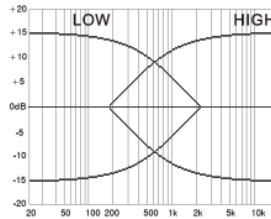


Channel controls

6. **GAIN** This control adjusts the input level to match lower output sources to suit the channel line level. Increase for lower output sources (e.g.) microphones or reduce for higher output sources (line level) If the PEAK LED (below) is lighting constantly, the GAIN set too high. The METER select button enables visual monitoring of the MAIN OUT or PHONES out, which is useful to check if overall levels are too high.

7. **HIGH EQ** This control can boost or cut the high frequencies by $\pm 15\text{dB}$ (12 o'clock position is zero)

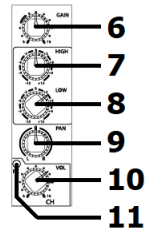
8. **LO EQ** This control can boost or cut the low frequencies by $\pm 15\text{dB}$ (12 o'clock position is zero)



9. **PAN/BAL** "PAN" is short for Panoramic, meaning the position that the signal appears in the stereo field. Moving the control clockwise fades the signal over to the right-hand output and moving the control anticlockwise fades the signal over to the left-hand output. "BAL" is short for Balance and applies only to the stereo channel L+R ratio.

10. **VOL** "VOL" is short for Volume. Turning this control clockwise increases the level of the channel signal sent to the output section.

11. **Peak LED** The peak LED will light when the channel is overloaded. Take care to only allow this to happen very briefly on the loudest parts of the audio or not at all. If this LED lights continually for any length of time, reduce the GAIN, channel volume or EQ until it only lights momentarily.



USB / 2TK

12. **USB Port** Type B USB connection for data connection to and from PC/Mac host computer and/or 5Vdc power. Located on the rear panel

13. **2TK IN** Left + Right (L+R) RCA connectors for line input direct to MAIN and/or PHONES output

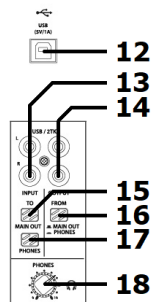
14. **2TK OUT** Left + Right (L+R) RCA connectors for line output from MAIN L+R or PHONES output

15. **TO MAIN OUT** Press in to route 2TK input to MAIN L+R outputs. Also sends USB digital audio from PC/Mac computer to MAIN L+R

16. **FROM** Press in to route PHONES output to 2TK OUT L+R RCA. Also sends PHONES output to USB for digital audio output to PC/Mac host computer. When not pressed in, MAIN OUT is routed to 2TK and USB outputs.

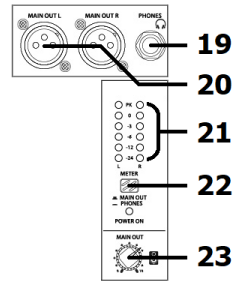
17. **TO PHONES** Routing of 2TK input or USB audio from PC/Mac computer to PHONES output.

18. **PHONES** Volume control for PHONES output to headphones and monitoring.



Output Section

- 19. PHONES Output Stereo 6.3mm jack output for headphone monitoring
- 20. MAIN OUT L+R Left and Right main balanced line outputs via XLRM connectors to be fed onto amplification or recording equipment.
- 21. VU Meters Left & Right LED main out level indicators.
- 22. METER select Press in to monitor the PHONES output on the VU Meters
In the out position, MAIN OUT is sent to the VU meters
- 23. MAIN OUT Master level control for MAIN OUT L+R



Setting Up

Connect microphones to the Mic / Line / Instrument combo inputs (1) via XLR, ensuring that the +48V button (3) is pressed in for any condenser microphones or D.I. boxes that require phantom power to operate.

For line or instrument inputs (such as electric guitar), connect these via 6.3mm jack plug to the combo inputs (1), ensuring that the IMPED button (2) is pressed in if it is a Hi-Z instrument. (Hi-Z means high impedance, such as guitar pickups)

For stereo line level signals, such as CD or mp3 players, computer sound cards or electronic keyboards, connect these via 6.3mm jack plug to the stereo inputs (4, 5) or if the input device is mono, just connect to the L/MONO input (4)

A further stereo line input may be also connected to the 2TK INPUT (13) 2-track L+R RCA input for monitoring back from a recording device or as an additional stereo playback source. This can be routed to the MAIN OUT and/or PHONES outputs using the TO MAIN (15) and TO PHONES (17) buttons.

If headphones are to be used for monitoring the main output, connect these to the PHONES 6.3mm stereo jack (19) and turn the PHONES control (18) down fully before listening to the headphones, gradually turning this control up to the required level to avoid damage to hearing. (note: this control is pre-master fader, which means that it can also be used as an independent output)

Connect the MAIN OUT L+R XLR outputs (20) to the amplifier, recording device or active speakers.

A further stereo line output can be connected from the 2TK OUTPUT (14) 2-track L+R RCA output, which can be assigned from either the MAIN OUT or PHONES outputs using the FROM button (16)

Before connecting USB power, it is advised to turn all volume controls fully down to avoid any loud noises through the connected speakers or recording equipment.

Insert the supplied USB lead to the USB port (12) on the rear panel and connect to either a host computer or if not being used for digital audio, to a USB power supply with 5Vdc, 1A output. The POWER LED on the top panel will light to confirm that power is on.

Operation

Check the output of any channel by starting with its VOL (10) turned fully down. HIGH & LOW EQ controls and PAN or BAL controls should all be set in the mid position (12 o'clock).

Turn up the MAIN OUT or PHONES (31, 30) up and listen whilst playing the signal (or speaking into the microphone) and increasing its VOL control gradually. Stop when the desired output level is reached.

Avoid aiming the microphone or instrument pickup towards the loudspeaker(s), which can cause feedback, which is a loud whistling or howling sound caused when a mic or pickup hears its own output.

To adjust the tone characteristics of a Mic, Line or Instrument input signal, the high and low frequency content can be individually cut or boosted using the HIGH and LOW EQ controls (4, 5)

Turning the HIGH control clockwise from 12 o'clock boosts the high frequencies (treble) for a 'brighter' sound and turning it anticlockwise cuts them for a 'duller' sound.

Turning the LOW control clockwise from 12 o'clock boosts the low frequencies (bass) for a 'thicker' sound and turning it anticlockwise cuts them for a 'thinner' sound.

Boosting these too much can increase the chance of feedback, whereas cutting can sometimes help to reduce feedback, so experimentation is often necessary.

Adjust the PAN/BAL control towards left or right as desired (9). It is sometimes beneficial to bias individual channels to different sides of the stereo field to give separation and allow more detail in the mix.

Channels 1, 2 and 3/4 each have a volume control (10) to adjust the balance of each input in the mix.

When using the U-PAD as a main mixer for a digital recording setup via USB, the U-PAD is recognized as a generic plug & play USB Audio Device. Check in the computer audio settings to ensure that the U-PAD is selected for input and/or output within the recording software.

The mix of channels 1-4 is routed to the host computer via USB. The FROM button selects whether this is from the PHONES output or MAIN outputs, offering a choice of level controls and monitoring options. Turn down the MAIN OUT volume control before powering down to avoid loud noises through connected equipment.

Audio played back from the host computer is routed to the U-PAD via USB and can be selected for output to the PHONES or MAIN OUT by pressing one or both of the TO MAIN OUT or TO PHONES buttons.

Any audio from and to the USB interface is also mirrored on the 2TK IN and 2TK OUT RCA connections.

PHONES output (19) and MAIN OUT L+R (20) are also governed by their own volume controls (18, 23)

The overall level to the PHONES output can be displayed on the VU Meter LEDs by pressing in the METER select button (22). When this button is not pressed in, The MAIN OUT L+R output will be displayed.

Turn down volume controls on connected equipment before disconnecting USB power from the U-PAD to avoid loud noises which may cause damage.

Specifications

Power supply	5.5Vdc (USB)
Gain	-14 to +40dB
EQ: low	±15dB @ 80Hz
EQ: high	±15dB @ 12kHz
Phantom power	+48V individually switchable (XLR inputs only)
Input impedance: mic	2kΩ
Input impedance: instrument	1MΩ
Input impedance: line	20kΩ
Frequency response	20Hz - 20kHz (±0.5B)
USB computer interface	Duplex stereo in/out AD/DA
Sampling format	24-bit, 96kHz max.
THD +N	<0.03% @ 1kHz
Dynamic range	102dB
Crosstalk: stereo	92dB
Output	Left + Right balanced XLR (analogue)
Output impedance	120Ω
Dimensions	171 x 166 x 66mm
Weight	900g



Disposal: The “Crossed Wheelie Bin” symbol on the product means that the product is classed as Electrical or Electronic equipment and should not be disposed with other household or commercial waste at the end of its useful life. The goods must be disposed of according to your local council guidelines.

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