

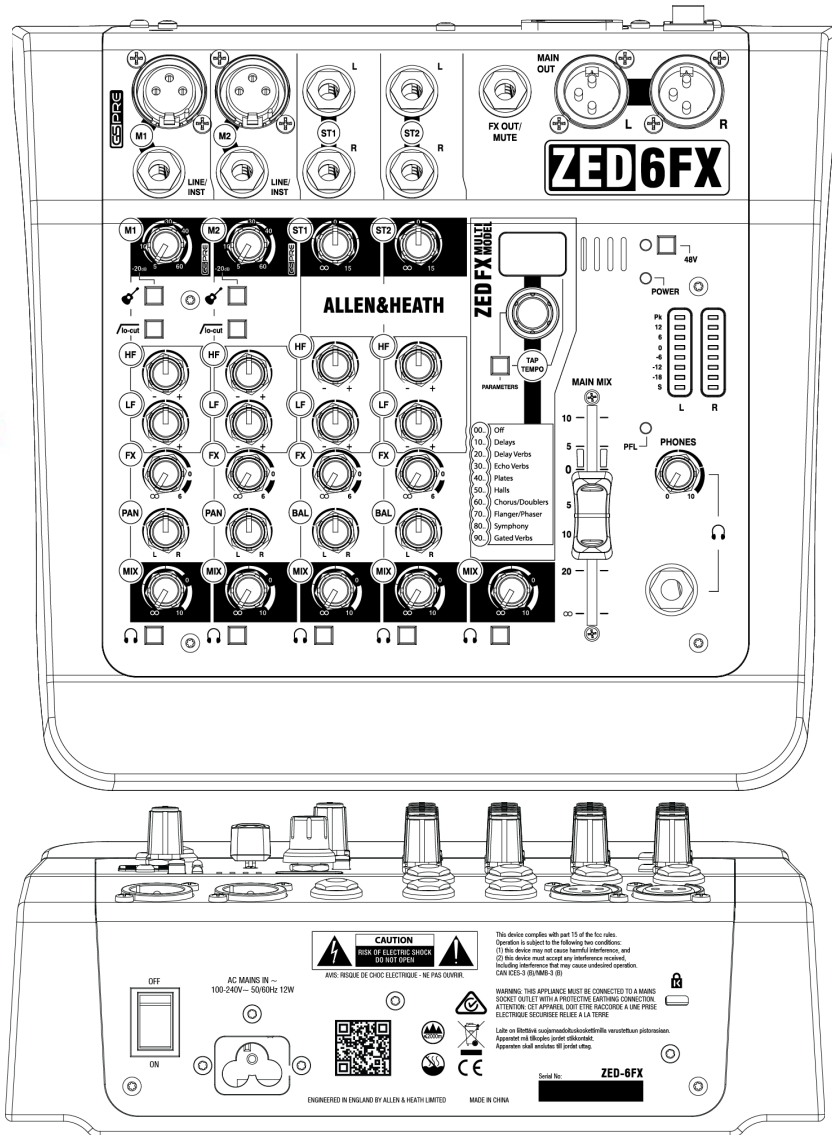
ZED-6FX 6 Channel Live + Recording Mixer User Guide

Thank you for purchasing this Allen & Heath ZED-6FX.

We recommend that you read all of this user guide to get the best from your mixer and after reading, please keep this safe for future reference.

Included in this package is:

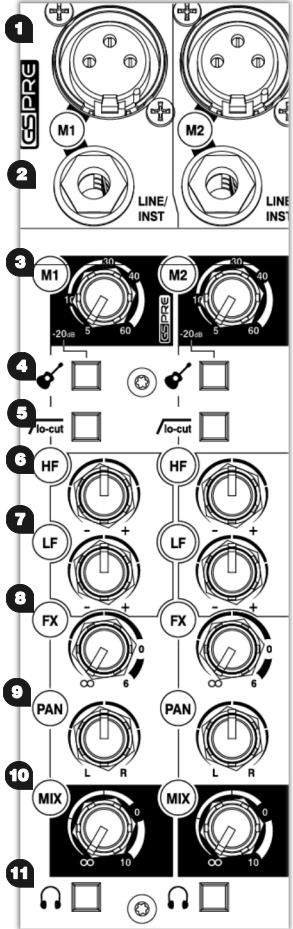
- ZED-6FX Mixer
- IEC C5 Mains Power Cable. Please *check correct mains plug is fitted for your country.*
- This User Guide!



1. Get to know your mixer

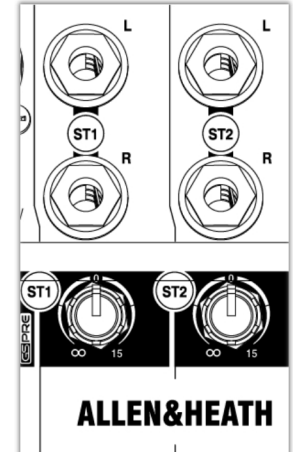
1.1 MONO INPUT CHANNELS (M)

1. **Mic Input Socket** uses a standard 3-Pin XLR socket for connecting dynamic or condenser microphones.
2. **Line / Inst Input Socket** uses a standard 1/4" (6.25mm) Jack socket for connecting balanced or unbalanced signals such as guitars and other instruments.
3. **Gain Control** adjusts the gain of the input preamplifier to drive the source signal level. Gain ranges from 5dB to 60dB.
4. **Instrument** activates the **Line / Inst input** circuit for electro-acoustic and electric guitars, basses and other Direct Input instruments. When activated the **Mic Input Socket** is disabled.
5. **lo-cut** (Hi-Pass Filter) is used for reducing Low Frequency noise such as handling noise, popping, rumble and proximity effect in microphone signals.
6. **HF EQ** (High Frequency) equaliser affects treble frequencies in the signal for adding "brightness" and "definition" or for reducing "hiss" and "harshness".
7. **LF EQ** (Low Frequency) equaliser affects bass frequencies in the signal to cover "boom" and "sub-bass" frequencies.
8. **FX send** controls the amount of signal sent from the channel to the FX buss and the **FX OUT**. The signal is post-fader (**MIX**) which means it's affected by the channel **MIX** control so it stays in proportion to the signal going to the **MAIN MIX**.
There is no master level control for the FX OUT.
9. **PAN** adjusts signal from a mono input channel between the left and right busses and subsequently the main outputs.
10. **MIX** rotary fader controls the amount of signal to the left and right busses.
11. **Pre-Fade Listen (PFL)** switches the channel input signal to the headphones for checking before adding it to Mix. The **PFL** signal is taken after the **EQ** but before the **MIX** control.
The LR Meters display the channel input level when the PFL switch is activated.



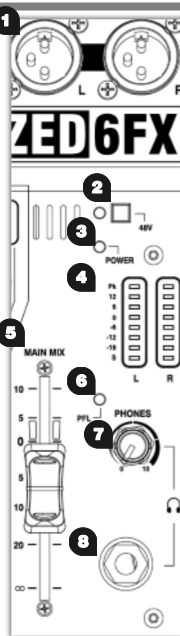
1.2 STEREO INPUT CHANNELS (ST)

- ST1 and ST2 Inputs** use standard 1/4" (6.25mm) Jack sockets for balanced or unbalanced line level stereo sources such as professional keyboards, drum machines and other pro audio equipment.
- ST1 and ST2 Gain Control** adjusts the input level to the channel.
- HF and LF EQ** are the same for **ST1 & ST2** as they are for **M1 & M2** and are set at the same frequencies.
- BAL** adjusts the relative level between the left and right stereo signals as they are sent to the left and right busses and subsequently the main outputs.



1.3 MASTER SECTION

1. **MAIN OUT L & R** are line level outputs for the main stereo mix using standard XLR output connectors and are impedance balanced for rejection of unwanted interference.
2. **48V** switches industry standard 48V (phantom power) to all the microphone inputs for use with condenser microphones and active D.I. boxes requiring +48V.
3. **POWER LED** indicates that the mixer is switched on.
4. **LR Meters** display the level of the **MAIN MIX** or the mono **PFL** signal if activated by any of the **PFL** switches.
5. **MAIN MIX fader** is the master volume control for the main stereo mix.
6. **PFL (Pre-Fade Listen) LED** indicates when a **PFL** switch has been pressed on one of the channels.
7. **PHONES level** controls the volume of signal to the **PHONES** output.
Warning! To avoid damage to your hearing do not operate headphones or sound system at excessively high volume. Continued exposure to high volume sound can cause frequency selective or wide range hearing loss!
8. **PHONES output** uses a standard 1/4" (6.25mm) jack socket.



2. Good practice

2.1 "Zeroing"

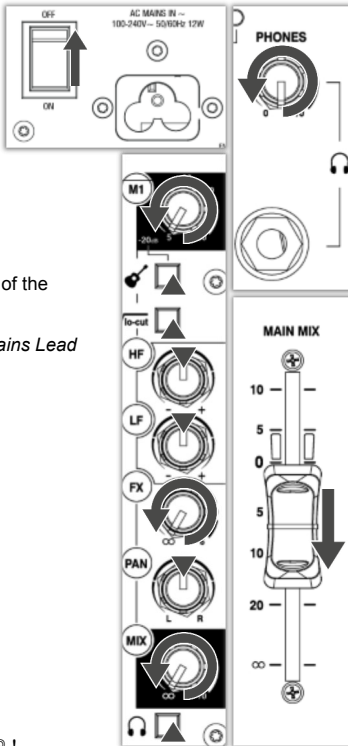
It's good practice to "zero" your mixer and turn down relevant channels before connecting any devices as this prevents potential damage to speakers or other equipment.

Follow these steps to make sure you're safe and you avoid thumps and bangs when plugging equipment in.

Speakers should always be switched ON LAST and OFF FIRST!

1. Make sure the power switch on the rear of the mixer is set to "OFF"
2. Connect the AC Mains Lead provided to the **AC MAINS IN** socket on the rear of the mixer.
Check that the correct mains plug is fitted for your country and plug the AC Mains Lead into a standard household mains socket.
3. Turn channel **Gain** controls all the way down (left).
4. Make sure **Instrument**, **HPF**, **PFL** and **48V** switches are not pressed in.
5. Set all channel **EQ** and **PAN** controls to the centre position marked "▼"
6. Turn all **FX send**, **AUX send** and **MIX** controls all the way down (left).
7. Lower the **MAIN MIX fader** to "∞".
8. Turn down the **PHONES level**.
9. Double check speakers or amplifiers are switched off!
10. Connect speakers, instruments and other equipment.
11. Switch on instruments and other equipment, then mixer, **THEN** speakers!

Speaker or amp volumes should be set according to manufacturer guidelines.



3. Connect mics, instruments and other equipment

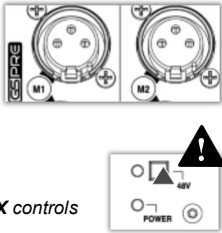
3.1 Connecting Microphones

Dynamic or condenser microphones and DI boxes should be connected to the **Mic Input Socket** using a balanced XLR Microphone cable.

If you're using a condenser microphone, it will require 48V Phantom Power to work.

Some active DI boxes may also require phantom power.

*Avoid 'hot plugging' when connecting any equipment and make sure **AUX MASTER** and **MAIN MIX** controls are turned down before 48V is switched on as this as may cause loud thumps and bangs!*



3.2 Connecting Instruments and Line-Level Equipment

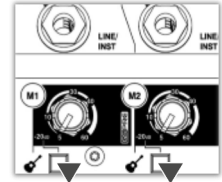
High-Impedance (Hi-Z) instruments such as electro-acoustic guitars, basses and other Direct Input instruments should be connected to **Line / Inst Inputs** on channels **M1 & M2** using a jack to jack instrument cable, and do not require an additional DI box or preamp.

The **Instrument** switch must be activated to match extremely high impedance signals (10MΩ) from instrument pickups.

Line level instruments such as keyboards, synthesizers, drum machines or equipment such as external effect processors can be connected to **Line / Inst Inputs** on channels **M1 & M2**, and **LINE** inputs on **M3 & M4** for mono sources or **ST1 & ST2** for stereo sources.

For channels **M3 & M4** the **LINE/PAD** switch must be activated.

Follow the application examples in Section 7. for connecting devices to relevant input and outputs.



4. Get the best sound

4.1 Gain Structure

1. Once you've connected your instruments and equipment you will need to set input levels before you can mix the signals together.
2. Gain structure is important to get the maximum signal level without undesirable distortion. Setting gain properly helps to optimise signal quality and ensure that the signal to noise ratio remains as low as possible.
3. If you're using a microphone make sure the mic is placed at an appropriate distance to the sound source. (Close for quiet sources, further away for louder).
4. Press the **PFL** switch on the corresponding channel. This will allow you to hear the pre-fader input signal and will show the signal level on the **LR Meters**.
5. Sing, talk or play your instrument at a typical level of loudness.
6. **Slowly** raise the **Gain Control** on the corresponding channel until you see a good signal level in the **LR Meters**. Maximum peaks between "0" and "+6" on the meters are a good indicator.
7. Connect professional monitoring headphones to the **Phones** output and turn up the **PHONES level** to a safe listening volume.
8. If the signal sounds undesirably distorted at a low signal level, enable any pad switch on the microphone, or move the microphone further away from the source and repeat the process.

Once you're happy with the input signal level, you may wish to use **lo-cut** (Hi-pass Filter) and the **EQ** to enhance intelligibility or to remove unwanted frequencies, and improve the tonal balance of the source sound, so keep the channel **PFL** switch enabled for now!

Section 4. continued overleaf...

