

# AXS Mixers



## USER'S MANUAL

# AXS

ANALOG AUDIO MIXERS



MAKERS OF THE ORIGINAL  
HOT SPOT PERSONAL MONITOR



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## Introduction

Thank you for choosing a Galaxy AXS Analog Audio Mixer. You have joined hundreds of thousands of other satisfied Galaxy customers. Since 1977 Galaxy Audio's professional experience in design and manufacturing ensure our products' quality, performance and reliability.

For the most up to date manual and information  
visit [www.galaxyaudio.com](http://www.galaxyaudio.com).

# Safety Instructions




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

## ! IMPORTANT SAFETY INSTRUCTIONS !

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. CLEAN ONLY with dry cloth.
7. DO NOT block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. DO NOT defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider 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.
10. PROTECT the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. ONLY USE attachments/accessories specified by the manufacturer.
12.  USE only with a cart, stand, tripod, bracket, or table Specified by the manufacturer, or sold with the Apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. UNPLUG this apparatus during lightning storms or when unused for long periods of time.
14. REFER all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. DO NOT expose the apparatus to dripping and splashing. DO NOT put objects filled with liquids, such as vases, on the apparatus.
16. Remove the batteries from the receiver if the system will not be used for a long period of time. This will avoid any damage resulting from a defective, leaking battery.
17. DO NOT throw used batteries into a fire. Be sure to dispose of or recycle used batteries in accordance with local waste disposal laws.

# AXS-8 | AXS-10 | AXS-14 | AXS-16 | AXS-18

The AXS Series has Premium High Quality Mic Preamps & Compressors, Flexible EQs, 24-Bit Multi-FX Processor and USB/Audio Interface.

## 1. Overview

**Mic Preamp** - The microphone channels feature high-end Mic Preamps that compare well with costly outboard preamps in terms of sound quality and dynamics and boast the following features:

- 130 dB **Dynamic Range** for an incredible amount of headroom.
- A Bandwidth ranging from below 10 Hz to over 200 kHz for crystal-clear reproduction of even the finest nuances.
- The extremely low-noise and distortion-free circuitry guarantees absolutely natural and transparent signal reproduction.
- They are perfectly matched to every conceivable microphone with up to 60 dB gain and +48 volt **Phantom Power** supply.
- They enable you to use the greatly extended **Dynamic Range** of your 24-bit / 192-kHz HD recorder to the full, thereby maintaining optimal audio quality.

**Multi-Effects Processor** - Additionally, your AXS series mixing console has an **Effects Processor** with 24-bit A/D and D/A converters included, which gives you 16 presets producing first-class reverb, delay and modulation effects plus numerous multi-effects in excellent audio quality.

The AXS series mixing consoles are equipped with a state-of-the-art **switched-mode** power supply (**SMPS**). Unlike conventional circuitry, an SMPS provides an optimum current supply regardless of the Input voltage. And thanks to its considerably higher efficiency, a switched-mode power supply uses less energy than conventional power supplies.

**FBQ Feedback Detection System (AXS-14 Only)** - The **FBQ Feedback Detection System** integrated into the graphic EQ of your AXS-14 is one of this mixer's most outstanding features. This ingenious circuitry lets you immediately recognize and eliminate feedback frequencies. The **FBQ Feedback Detection System** uses the LEDs in the frequency band faders of the graphic EQ to indicate the critical frequencies.

**Voice Cancellor (AXS-14 Only)** - We have added another useful feature to the AXS-14, the **Voice Cancellor**. The **Voice Cancellor** is a filter circuitry that filters out vocal portions from a track. Therefore, this mixing console is ideally suited for use as a karaoke machine. This feature is also an optimal solution for singers who need accompanying music for their rehearsals.

### CAUTION!

We would like to draw your attention to the fact that extreme volumes may damage your hearing and/or your headphones or loudspeakers. Turn the MAIN MIX faders and phones control in the main section fully down before you switch on the unit. Always be careful to set the appropriate volume.

## 1.1 General Mixing Console Functions

A mixing console fulfills three main functions:

- **Signal Processing:**

**Preamplification** - Microphones convert sound waves into voltage that has to be amplified several-fold before it can be converted back into sound waves by the loudspeakers. Because microphone capsules are very delicate in their construction, Output voltage is very low and therefore susceptible to interference. Therefore, mic signal voltage is amplified directly at the mixer Input to a higher signal level that is less prone to interference. This higher, interference-safe signal level has to be achieved through amplification using an amplifier of the highest quality in order to amplify the signal and add as little noise to it as possible. Our mic preamp performs this role beautifully, leaving no traces of noise or sound coloration. Interference that could take place at the preamplification level could affect signal quality and purity, and would then be passed on to all other devices, resulting in inaccurate sounding program during recording or playback.

**Level-Setting** - Signals fed into the mixer using a **DI-box (Direct Injection)** or the Output of a sound card or a keyboard, often have to be adjusted to the operating level of your mixing console.

**Frequency Response Correction** - Using the equalizers found in each channel strip, you can simply, quickly and effectively adjust the way a signal sounds.

### Effects Mixing

In addition to the effects processor contained in your mixer, using the insert connectors on the Mono channels and AUX Busses lets you insert additional signal processors into your signal path.

**Signal Distribution** - Individual signals adjusted at each channel strip are laid out at the AUX Sends and Returns, and are either fed into external effects processors or fed back to the internal effects processor. Then, the signals are brought back into the main mix either via the AUX Return connectors or via direct internal wiring. The mix for the on-stage musicians is also created using the AUX Sends (monitor mix). Similarly, for example, signals for recording equipment, power amplifiers, headphones and 2-track Outputs can also be taken.

**Mix** - All other mixing console functions fall under this vital category. Creating a mix means primarily adjusting the volume levels of individual instruments and voices to one another as well as giving them the appropriate weight within the overall frequency spectrum. Likewise, you'll have to sensibly spread individual voices across the Stereo image of a signal. At the end of this process, adjusting the level of the entire mix to other equipment in the signal path is required (e.g. recorder/crossover/amplifier). The control surface of the mixing consoles is optimized in such a way that these functions become easy to fulfill while the signal path remains simple to follow.

## 1.2 The User's Manual

The user's manual is designed to give you both an overview of the controls, as well as detailed information on how to use them. In order to help you understand the links between the controls, we have arranged them in groups according to their function.

## 1.3 Before You Get Started

### 1.3.1 Shipment

Your mixing console was carefully packed in the factory to guarantee safe transport. Nevertheless, we recommend that you carefully examine the packaging and its contents for any signs of physical damage, which may have occurred during transit.

- If the unit is damaged, please do NOT return it to us, but notify your dealer and the shipping company immediately, otherwise claims for damage or replacement may not be granted.

### 1.3.2 Initial Operation

Be sure that there is enough space around the unit for cooling purposes, and to avoid over-heating, please do not place your mixing console on high-temperature devices such as radiators or power amps. The console is connected to the mains via the supplied cable. The console meets the required safety standards. Blown fuses must only be replaced by fuses of the same type and rating.

- Please note that all units must be properly grounded. For your own safety, you should never remove any ground connectors from electrical devices or power cables, or render them inoperative.
- Please ensure that only qualified people install and operate the mixing console. During installation and operation, the user must have sufficient electrical contact to earth, otherwise electrostatic discharges might affect the operation of the unit.

## 2. Control Elements and Connectors

This chapter describes the various control elements of your mixing console. All controls, switches and connectors will be discussed in detail.

### 2.1 Mono Channel

#### 2.1.1 Microphone and Line Inputs



All models (except AXS-18)

AXS-18

Fig. 2.1 - Connectors and Control, of Mic/Line Inputs

**MIC** - Each Mono Input channel offers a balanced microphone Input via the XLR connector and also features switchable +48 V Phantom Power supply for condenser microphones. The preamps provide undistorted and noise-free gain as is typically known only from costly outboard preamps.

- Please mute your system before you switch on Phantom Power. Otherwise potentially damaging thumps will be sent to your speakers. Please also note the instructions in chapter 5.5 “Voltage Supply, Phantom Power and Fuse”.

**LINE IN** - Each Mono Input also has a balanced line Input on a 1/4" jack. You can also connect unbalanced devices using Mono jacks to these Inputs.

- Please remember that you can use either the microphone Input or the line Input of a channel, but not both at the same time!

#### INSERT

- Insert points enable the processing of a signal with dynamic processors or equalizers. They are sourced pre-fader, pre-EQ and pre-AUX Send. Detailed information on using insert points can be found in chapter 5.3
- Unlike the AXS-18, the AXS-8, AXS-10, AXS-14 and AXS-16 have their insert points located on the rear of the console.



**GAIN** - Use the **GAIN** control to adjust the Input GAIN. This control should always be turned fully counter-clockwise whenever you connect or disconnect a signal source to one of the Inputs.

While the GAIN control is turned all the way down, connect your equipment. If that unit has an Output signal level display, it should show 0 dB during signal peaks. Gain setting of a signal being fed in is done using the **Level Meter**. To route the channel signal to the Level Meter, you have to press the **SOLO** switch and set the **MODE** switch in the main section to **PFL (LEVEL SET)**.

Using the GAIN control, drive the signal to the 0-dB mark. This way you have a vast amount of drive headroom for use, with very dynamic signals. The **CLIP** display should light up only rarely, preferably never. While fine-tuning, the Equalizer should be set to neutral.

**LOW CUT** - Additionally, the Mono channels of the mixing consoles have a High-Slope **LOW CUT** filter for eliminating unwanted, Low-Frequency signal components (75 Hz, 18 dB/Octave). This should be used on vocals as well as any source with little low frequency content.

**COMPRESSOR** - Each Mono channel features a built-in **Compressor** which lowers the Dynamic Range of the signal and increases its perceived loudness. The loud peaks are squashed down and the quiet sections are boosted. Turn the **COMP** knob clockwise to add more compression effect. The adjacent LED will light when the effect is engaged.

## 2.1.2 Equalizer

All Mono Input channels have a **3-Band Equalizer** with semi-parametric Mid Bands (except for the AXS-8). All Bands provide boost or cut of up to 15 dB. In the central position, the Equalizer is off (flat).



All Models (except AXS-8)

AXS-8

Fig. 2.2: Equalizer of the Input Channels

The Upper (**HIGH**) and the Lower (**LOW**) Bands are **Shelving Filters** that increase or decrease all frequencies above or below their Cut-Off Frequency. The Cut-Off Frequencies of the Upper and Lower Bands are 12 kHz and 80 Hz respectively. For the Mid Range, the console features a semi-parametric Equalizer with a filter quality (Q) of 1 Octave, tunable from 100 Hz to 8 kHz. Use the (**MID**) control to set the amount of boost or cut, and the **FREQ** control to determine the Central Frequency. For the AXS-8, the Mid Band is configured as a Peak Filter with a Center Frequency of 2.5 kHz.

## 2.1.3 Monitor and Effects Buses (AUX Sends)

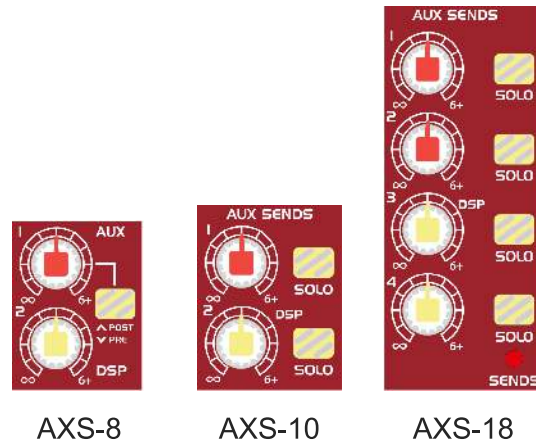


Fig. 2.3: AUX Send Control MON and FX Master Sections

Monitor and Effects Buses (AUX Sends) source their signals via a control from one or more channels and sum these signals to a so-called Bus. This Bus signal is sent to an AUX Send connector (for monitoring applications: MON OUT) and then routed, for example, to an active monitor speaker or external effects device. In the latter case, the effects return can then be brought back into the console via the AUX Return connectors.

All Monitor and Effects Buses are Mono, are tapped into post EQ, and offer amplification of up to +15 dB.

- **(AXS-8 Only)** If you press the **MUTE/ALT 3-4** switch, AUX Send 1 is muted, provided that it is switched post-fader. However, this does not affect the AUX Send 2 of the AXS-8.

**Pre-Fader/Post-Fader** - When using effects on a channel signal, it is usual to have the AUX Send post fader so that the balance between effect and dry signal stays constant even when the channel fader is altered. If this were not the case, the effects signal of the channel would remain audible even when the channel fader is turned all the way down. For monitoring, the AUX Sends are generally pre-fader, i.e. they operate independently of the position of the channel fader.

**PRE** - When the **PRE** switch is pressed down, the associated AUX Send is taken pre-fader.

**FX** - The AUX Send marked **FX** offers a direct route to the built-in Effects Processor and is therefore post-fader and post-mute. Please refer to chapter 4 “DIGITAL EFFECTS PROCESSOR” for detailed information.

- If you are using the built-in Effects Processor, make sure that STEREO AUX RETURN 3 has nothing plugged into it (AXS-18 and AXS-16), otherwise the internal Effects Return will be muted. This is not relevant if you use the FX OUT jack to drive an external effects device.
- AXS-8, AXS-10 and AXS-14: On these consoles, the above note refers to the STEREO AUX RETURN 2 jacks as these models do not have a dedicated effect Output. The STEREO AUX RETURN 2 connectors should not be in use if you wish to use the internal Effects Processor. You can connect an external Effects Processor to AUX SEND 2, however the internal Effects Module will be muted.

## 2.1.4 Routing Switch, PAN, SOLO and Channel Fader



Fig. 2.4: The Panorama and Routing Controls and the Channel Fader

**PAN** - The **PAN** control determines the position of the channel signal within the Stereo image. When working with subgroups, you can use the PAN control to assign the signal to just one Output, which gives you additional flexibility in recording situations. For example, when routing to subgroups 3 and 4, panning hard left will route the signal to group Output 3 only, and panning hard right will route to group Output 4 only.

**MUTE** - The **MUTE** switch breaks the signal path pre-channel fader, hence muting that channel in the main mix. The AUX Sends which are set to post-fader are likewise muted for that channel, while the pre-fader monitor paths remain active irrespective of whether the channel is muted or not.

**MUTE/ALT 3-4 (AXS-8 Only)** - You can use the **MUTE/ALT 3-4** switch to divert the channel from the main mix Bus to the ALT 3-4 Bus. This mutes the channel from the main mix

**MUTE LED** - The **MUTE LED** indicates a muted channel.

**MUTE LED (AXS-8 Only)** - The **MUTE LED** indicates that the relevant channel is diverted to the submix (ALT 3-4 Bus).

**CLIP-LED** - The **CLIP-LED** lights up when the Input signal is driven too high. If this happens, back off the GAIN control and, if necessary, check the setting of the channel EQ. Boosting frequencies with the EQ can also cause clipping.

**SOLO** - The **SOLO** switch is used to route the channel signal to the Solo Bus (Solo In Place) or to the PFL Bus (Pre Fader Listen). This enables you to listen to a channel signal without affecting the main Output signal. The signal you hear is taken either before the pan control (PFL, Mono) or after the pan and channel fader (Solo, Stereo) (chap. 2.3.10 “Level Meters and Monitoring”).

**SUB (1-2 and 3-4)** - The **SUB** switch routes the signal to the corresponding subgroups. The AXS-18 has 4 subgroups (**1-2** and **3-4**).

**MAIN** - The **MAIN** switch routes the signal to the main mix Bus.

The channel fader determines the channel’s volume in the main mix (or submix).

## 2.2 Stereo Channels

### 2.2.1 Channel Inputs



Fig. 2.5: The Various Stereo Channel Inputs

Each Stereo channel has two balanced line level Inputs on jacks for left and right channels. Channels 9/10 and 11/12 on the AXS-18 features an additional XLR microphone jack with Phantom Power. If only the left jack (marked “L”) is used, the channel operates in Mono. The Stereo channels are designed to handle typical line level signals, and, depending on model, have a level switch (+4 dBu or -10 dBV) and/or a line GAIN control. Both jack Inputs will also accept unbalanced connectors.

**LOW CUT and MIC GAIN** - These two control elements operate on the XLR connectors of the AXS-18, and are used to filter out frequencies below 75 Hz (**LOW CUT**) and to adjust microphone levels (**MIC GAIN**).

**LINE GAIN** - Use this control to adjust the line signal levels on channels 13-16 (AXS-18 only).

**LEVEL** - For level matching, the Stereo Inputs on the AXS-8, AXS-10, AXS-14 and AXS-16 have a **LEVEL** switch to select between +4 dBu and -10 dBV. At -10 dBV (home recording level), the Input is more sensitive than at +4 dBu (studio level).

### 2.2.2 Equalizer Stereo Channels

The Stereo channels contain a Stereo EQ section. The Cut-Off Frequencies of the High and Low Bands are 12 kHz and 80 Hz respectively, while the Center Frequencies of the High-Mid and Low-Mid Bands are 3 kHz and 500 Hz respectively. The HIGH and LOW controls have the same characteristics as the EQ in the Mono channels. Both Mid-Range bands are of the Peak Filter type. A Stereo EQ is superior to two Mono EQs on a Stereo signal as two separate EQs will usually result in a discrepancy between left and right channels.

### 2.2.3 AUX Sends Stereo Channels

In principle, the AUX Sends of the Stereo channels function the same way as those of the Mono channels. As the AUX Sends are Mono, the Send from a Stereo channel is first summed to Mono before it reaches the AUX Bus.

## 2.2.4 Routing Switch, Solo and Channel Fader



Fig. 2.6: Balance Control and Mute Switch

**BAL** - The **Balance** control has a similar function to the PAN control in the Mono channels.

The balance control determines the levels of the left and right Input signals relative to each other before both signals are routed to the left/right main mix Bus (or odd/even subgroup).

The remaining control elements in the Stereo channels perform the same functions as their counterparts in the Mono channels (MUTE switch, MUTE and CLIP LEDs, SOLO switch, SUB and MAIN switches and channel fader).

For the AXS-8 only, the MUTE/ALT 3-4 switch, the MUTE-LED, the CLIP-LED, the SOLO switch, and the channel fader function in the same way as the Mono channels.

## 2.3 Interface Panel and Main Section

Where it was useful to trace the signal flow from top to bottom in order to gain an understanding of the channel strips, we now look at the mixing console from left to right. The signals are collected from the same point on each of the channel strips and then routed to the main section all together.

### 2.3.1 MON Control, AUX Sends 1, 2 and 3 (FX)

Turning up the AUX 1 control in a channel routes the signal to the AUX Send Bus 1.

- As the AXS-14 is equipped with an additional monitor path, its first AUX control in the channel strips is named MON. The console also has a dedicated master fader (MON SEND) for this AUX path.

**AUX SEND 1, 2 and 4** - The **AUX SEND 1** control governs the master Send level of the mix created by the individual channel AUX 1 Sends.

Likewise, the **AUX SEND 2** control is the master control for the AUX 2 Bus, and **AUX SEND 4** controls the AUX 4 Bus.



AXS-18

Fig. 2.7: The AUX SEND Controls of the Main Section.

**AUX SEND 3 (FX)** - The **FX** control determines the signal level for effects processing, i.e. regulates the level to an external (or the internal) effects device.

AXS-10 and AXS-14: On these consoles, this function is performed by the **AUX SEND 2** control (**FX**).

**SOLO** - You can use the **SOLO** switch to separately monitor the AUX Sends via the CONTROL ROOM/PHONES Outputs and check these with the Level Meters.

- If you want to monitor the signal of just one AUX Bus, none of the other SOLO SWITCHES should be pressed, and the MODE switch should be in the SOLO position (not depressed).

### 2.3.2 AUX Send Jacks

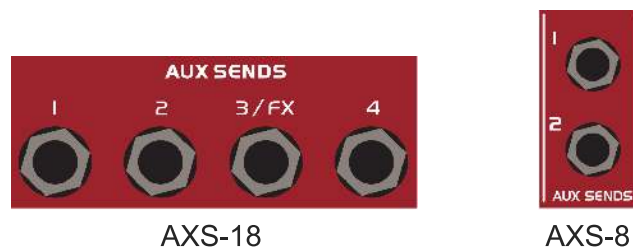


Fig. 2.8: AUX Send Jacks

**AUX SEND Jacks** - The **AUX SEND Jack** should be used when hooking up a monitor power amp or active monitor speaker system. The relevant AUX path should be set pre-fader.

- On the AXS-16, AUX Send 1 is hard wired as pre-fader and hence called MON. Model AXS-14 has a dedicated monitor Output (MON OUT jack).

As already mentioned, the AUX Sends in the channels- if set post-fader can be used to connect to external effects devices.

**AUX SEND (FX)** - The **AUX SEND (FX)** jack carries the master AUX mix (from the channel's FX controls). You can connect this to an external effects device to process the FX Bus. The processed signal can then be brought from the effects device back into the STEREO AUX RETURN jacks.

### 2.3.3 Stereo AUX Return Connectors



Fig. 2.9: The AUX Return Connectors

- On the AXS-16, AXS-14, AXS-10 and AXS-8 the STEREO AUX RETURN jacks are located on the front panel of the unit.

**STEREO AUX RETURN** - The STEREO AUX RETURN 1 jacks generally serve as the return for the effects mix (created using the post-fader AUX Sends) by connecting the Output of an external effects device. If only the left jack is connected, the AUX RETURN is automatically switched to Mono.

- You can also use these jacks as additional line Inputs.

All Stereo AUX Returns are balanced, but can of course also be used with unbalanced connectors. If you use an AUX Send for monitoring, the associated unused Stereo AUX Returns are available for other line level signals (e.g. keyboards).

- A signal fed into the Stereo return jacks can be output via an AUX Send jack. More information on this can be found in chapter 2.3.5 “STEREO AUX RETURN 1/2 (TO AUX SEND)”.

**STEREO AUX RETURN FX** - The **STEREO AUX RETURN FX** jacks accept the effects mix return (created using the channel FX Sends). If these jacks are already in use as additional Inputs, you can route the effects signal back into the console via a different channel. The advantage of this is that you can now use that channel’s EQ on the effects return signal.

- In this instance, the FX control of the channel being used as an effects return should be turned fully counter-clockwise, otherwise feedback problems could occur!
- If you wish to use the internal effects processor, do not plug any connectors into the STEREO AUX RETURN FX jacks, unless you want to tap the processed signal via the FX OUT (AXS-16 and AXS-18 only).

### 2.3.4 The Monitor Section of the AXS-14

One of the ways that the AXS-14 differs from the other models of this series is that it has a separate monitor Output.



AXS-14

Fig. 2.10: Monitor Output of the AXS-14

The first AUX Send (MON) on this console is used to set up the monitor mix from the channels and route it to the MON SEND fader.



AXS-14

Fig. 2.11: Monitor Fader of the AXS-14

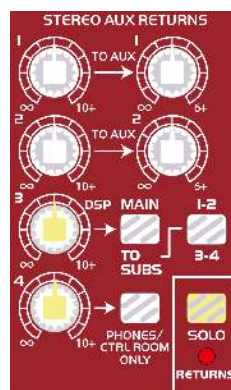
**MUTE** - Press the **MUTE** switch to mute the monitor Send.

**SOLO** - The **SOLO** switch routes the monitor send to the Solo Bus (post-fader and post-mute) or to the PFL Bus (pre-fader and pre-mute). The position of the MODE switch in the main section determines which of the Buses is selected.

### 2.3.5 Stereo AUX Return Control

**STEREO AUX RETURN 1** - The **STEREO AUX RETURN 1** control determines the level of this signal in the main mix. If **STEREO AUX RETURN 1** is used as effects return, this will determine the level of the effects when mixed with any “dry” channel signal.

- When used in this way, the effects device should be set at 100% effect.



AXS-18

Fig. 2.12: Stereo AUX Return and Stereo AUX Return (to AUX Send) Controls

**STEREO AUX RETURN 1/2 (TO AUX SEND)** - The two right-hand **STEREO AUX RETURN** controls have a special function, they can be used to add an effect to a monitor mix. An example follows (AXS-10 wired to an effects device):

**Monitor Mix with Effect** - In this instance, your effects device should be set up as follows: the AUX SEND 2 jack should be connected to the L/Mono Input of your effects device, with its Outputs coming back into the STEREO AUX RETURN 1 jacks. Connect the AUX SEND 1 jack Output to the amplifier of your monitor system.

The AUX SEND 1 master control determines the overall volume of the monitor mix.

Using the STEREO AUX RETURN (TO AUX SEND) control, the effect signal can now be blended into the monitor mix.



The following table shows which jacks on the console can be used for this purpose.

|         | External Effects Device Receives Signal From... | External Effects Device Routes Back To... | The Effect Signal Reaches the Monitor Mix via... |
|---------|---|---|--|
| AXS-8   | FX SEND   | STEREO AUX Return Connectors 1 or 2       | Stereo AUX Returns FX to Main                    |
| AXS-10  | AUX SEND 2                                      | STEREO AUX Return 1 Connectors            | STEREO AUX Return (TO AUX SEND 1) Control        |
| AXS-14  | AUX SEND 1                                      | STEREO AUX Return 2 Connectors            | MONITOR Switch of the FX/AUX 2 RET               |
| AXS-16  | AUX SEND 2                                      | STEREO AUX Return Connectors 1 or 2       | STEREO AUX Return (TO AUX SEND 1) Control        |
| AXS-18  | AUX SEND 2                                      | STEREO AUX Return 1 Connectors            | STEREO AUX Return (TO AUX SEND 1) Control        |
| Options | AUX SEND 1                                      | STEREO AUX Return 2 Connectors            | STEREO AUX Return (TO AUX SEND 2) Control        |

Tab. 2.1: Connectors and Controls for Monitor Mix with Effect

**STEREO AUX RETURN FX** - On consoles AXS-10 and AXS-14 this is the STEREO AUX RETURN 2, on consoles AXS-16 and AXS-18 this is the STEREO AUX RETURN 3.

Use the **STEREO AUX RETURN FX** control to determine the level of the signal routed from the AUX RETURN FX jacks to the main mix. If nothing is connected to these jacks, the Output of the built-in effects module will appear.

**MAIN MIX/TO SUBS** - This switch routes the signal fed in via the STEREO AUX RETURN FX jacks either to the main mix (not pressed) or to the submix (pressed). On the AXS-18 you can select which subgroup the signal is assigned to (switches 1-2/3-4, to the right of **MAIN MIX/TO SUBS**).

**MAIN MIX/ALT 3-4 (AXS-8 Only)** - The **MAIN MIX/ALT 3-4** switch routes signal connected to the STEREO AUX RETURN 2 to either main mix (not pressed) or submix (ALT 3-4, pressed).

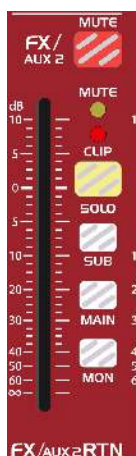
**SOLO RETURNS** - Additionally, this model allows you to route the AUX Returns together to the Solo Bus and the PFL Bus. The LED lights up when Solo is on.

**STEREO AUX RETURN 4 (AXS-18 Only)** - This control behaves the same way as the other Stereo AUX Returns. Additionally, it provides for a simple monitor path using the switch PHONES/CTRL ROOM ONLY.

**PHONES/CTRL ROOM ONLY** - Use this switch to route the signal appearing at the AUX RETURN 4 jacks to the control room and headphones Outputs.

### 2.3.6 Supplement to AXS-14

The AXS-14 has a Stereo fader for the AUX RETURN FX and offers a variety of routing options: MUTE disables the effect return (but not PFL), SOLO routes it to the Solo or PFL busses, SUB to the subgroups and MAIN to the main mix.



AXS-14

Fig. 2.13: The FX/AUX 2 Return Fader of the AXS-14

**MON** - The **MON** switch routes the signals appearing at the AUX RETURN 2 jacks to the monitor path, along with the monitor signals from the channels.

If you wish to route the effect signal to the monitor mix, you can also switch AUX 1 to pre-fader, drive the effect device from the AUX 1 Output and Return the effect signal via AUX RETURN 2 to the monitor signal.

### 2.3.7 XPQ Surround Function (AXS-14 only)



AXS-14

Fig. 2.14: Control Elements of the Surround Function

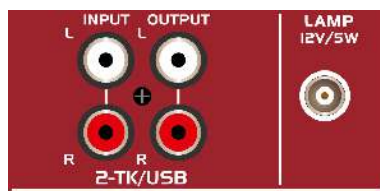
The XPQ surround function can be enabled/disabled with the XPQ TO MAIN switch. This is a built-in effect that widens the Stereo width, thus making the sound more lively and transparent. Use the SURROUND control to determine the intensity of this effect.

**VOICE CANCELLER** - Here, you have a filter circuitry that lets you almost entirely remove the vocal portion of a recording. The filter is constructed in such a way that voice frequencies are targeted without majorly affecting the rest of the signal. Additionally, the filter seizes only the middle of the Stereo image, exactly there where the vocals are typically located.

- Connect the signal sources you wish to process using the **Voice Canceller** to the CD/TAPE INPUT connectors. The Voice Canceller circuitry is not available for other Inputs.

Possible applications for the Voice Canceller are obvious: you can very simply stage background music for Karaoke events. Of course, you can also do this at home or at your rehearsal room before you hit the stage. Singers with their own band can practice singing difficult parts using a complete playback from a tape player or a CD, thus minimizing rehearsal time.

### 2.3.8 CD/Tape Input, CD/Tape Output



AXS-18

Fig. 2.15: 2-Track Connectors and Lamp Socket

**CD/TAPE INPUT** - The **CD/TAPE INPUT** jacks (RCA) are designed to accept a 2-track playback device (e.g. CD Player), or they can be used as Stereo line Input. The Output signal of a second AXS series or other mixer can also be connected here.

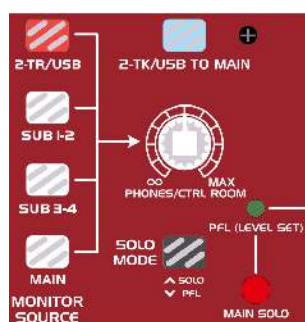
Using the voice canceller function (AXS-14 only), you can process all signals being brought into your mixing console via these connectors.

**CD/TAPE OUTPUT** - These connectors are wired in parallel to the MAIN OUT and carry the main mix signal (unbalanced). Connect this to the Inputs of your recording device. The final Output level can be adjusted via the high-precision MAIN MIX fader.

### 2.3.9 Lamp Socket (AXS-18 Only)

Use this BNC socket to connect a gooseneck lamp (12 VDC, max. 0.5 A).

### 2.3.10 Level Meter and Monitoring



AXS-18

Fig. 2.16: Control Room and Phones Sections of the AXS-18

**CD/TAPE** - The **CD/TAPE** switch routes the signal from the CD/TAPE INPUT jacks to the Level Meter, the CONTROL ROOM OUT Outputs and the PHONES jack-this is a simple way to check recorded signals via monitor speakers or headphones.

**SUB 1-2 or SUB** - The **SUB 1-2** switch routes subgroup 1-2 to the Level Meter, CONTROL ROOM OUT and phones.

**SUB 3-4** - The **SUB 3-4** switch performs a similar function for subgroup 3-4 (AXS-18 only).

**ALT 3-4 (AXS-8 Only)** - Similarly, the **ALT 3-4** switch routes the signal from the ALT 3-4 Bus to the same path for monitoring purposes.

**MAIN MIX** - The **MAIN MIX** switch sends the main mix to the CONTROL ROOM OUT and the PHONES Output as well as to the Level Meter.

**PHONES/CTRL ROOM** - Use this control to adjust the control room Output level and the headphones volume.

**CD/TAPE TO MAIN** - When the **CD/TAPE TO MAIN** switch is depressed, the 2-track Input is routed to the main mix and thus serves as an additional Input for tape machines. You can also connect MIDI instruments or other signals here that do not require any further processing. At the same time, this switch disables the main mix to tape Output link.

**POWER** - The blue **POWER LED** indicates that the device is switched on.

**+48 V** - The red “**+48 V**” LED lights up when Phantom Power is switched on. Phantom Power is required to operate condenser microphones.

- While Phantom Power is switched on, do not connect or disconnect microphones on the mixer (or the stage box/wall box). Connect any microphones before switching on Phantom Power. Additionally, monitor/PA speakers should be muted before you activate the Phantom Power supply. After switching on, wait approx. one minute before adjusting the Input gain so that the system has time to stabilize.

### 2.3.11 Level Meter

The high-precision **Level Meters** always give you an accurate display of signal level.

**LEVEL SETTING** - When recording to digital recorders, the recorder’s meter should not go into overload. This is because, unlike analog recordings, it takes only slightly excessive levels to create unpleasant digital distortion.

When recording to analog, the VU meters of the recording machine should reach approx. +3 dB with Low-Frequency signals (e.g. kick drum). Due to their inertia, VU meters tend to display too low of a signal level at frequencies above 1 kHz. You should only drive instruments such as a Hi-Hat as far as -10 dB. Snare drums should be driven to approx. 0 dB.

- The peak meters of your AXS series display level almost independent of frequency. A recording level of 0 dB is recommended for all types of signal.

**MODE** - The **MODE** switch determines whether the channels’ SOLO switch operates as PFL (Pre Fader Listen) or as Solo (Solo In Place).

**PFL (LEVEL SET)** - To activate the **PFL** function, press the MODE switch. The PFL function should, as a rule, be used for level setting (GAIN). The signal is sourced pre-fader and assigned to the mono PFL Bus. In “PFL” mode, only the left side of the peak meter is in operation. A PFL’d channel should be driven to the 0 dB mark of the VU meter.

**SOLO (NORMAL)** - When the MODE switch is not depressed, the Stereo Solo Bus is active. **Solo** is actually short for “Solo In Place”. This is the customary method for listening to an individual signal or to a group of signals. As soon as a Solo switch is pressed, all channels not Solo selected are muted in the monitor path (control room and phones). A channel’s position in the Stereo image is maintained. The Solo Bus carries the Output signals of the channel PAN controls, the AUX Sends and the Stereo line Inputs. On the AXS-18 all AUX Returns, and on the AXS-14 only AUX Return 2 can be routed to the Solo Bus. The Solo Bus is, as a rule, taken post-fader.

- The PAN control in the channel strip offers a constant power characteristic. This means that the signal is always at a constant level, irrespective of position in the Stereo panorama. If the PAN control is moved fully left or right, the level in that channel increases by 4 db. This ensures that, when set at the center of the Stereo image, the audio signal does not appear louder. For this reason, with the Solo function activated (Solo in Place), audio signals from channels with PAN controls that have not been moved fully left or right are displayed at a lower volume than in the PFL function.

As a rule, Solo signals are monitored via the control room Outputs and headphones jack and are displayed by the level meters. If a Solo switch is pressed, the signals from the tape Input, the subgroups and the main mix are cut from these Outputs and the level meter.

**MAIN SOLO** - The **MAIN SOLO LED** lights up as soon as a channel or AUX Send Solo switch is pressed. The MODE switch must be set to “Solo”.

**PFL (LEVEL SET)** - The **PFL (LEVEL SET) LED** indicates that the peak meter is set to PFL mode.



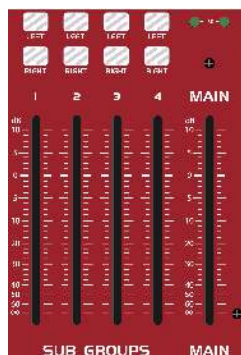
Fig. 2.17: PHONES Jack

**PHONES Jack** - You can connect headphones to this 1/4" Stereo jack (AXS-18: 2 phones jacks). The signal routed to the **PHONES** connection is the same as that routed to the control room Output.

### 2.3.12 Subgroups and Main Mix Fader

You use the high-precision quality faders to control the Output level of the subgroups and the main mix.

**LEFT/RIGHT Switch** - The switches located above the subgroup faders assign the subgroup signal either to the left or right side of the main Bus. Similarly, it can be routed to both sides or none at all. In the latter case, the sub mix is present only at the corresponding subgroup Outputs.



AXS-18

Fig. 2.18: Subgroup and Main Mix Fader

## Graphic 9-Band Equalizer (AXS-14 Only)

### 2.3.13 ALT 3-4 and Main Mix Fader (AXS-8 Only)

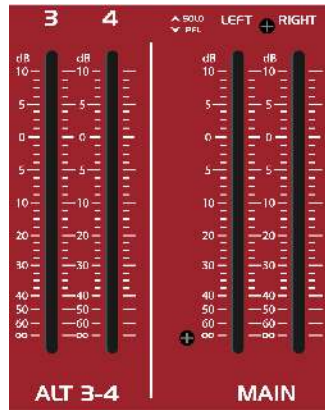
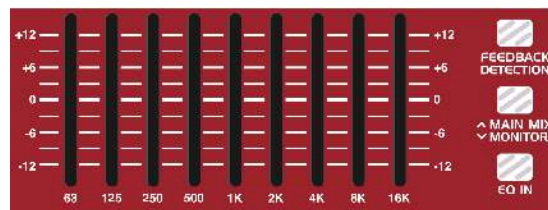


Fig. 2.19: Alt 3-4 and Main Mix Fader (AXS-8 Only)

You use the high-precision quality faders to control the Output level of the subgroups and the main mix.

## 3. Graphic 9-Band Equalizer (AXS-14 Only)



AXS-14

Fig. 3.1: The Graphic Stereo Equalizer of the AXS-14

The graphic Stereo Equalizer allows you to tailor the sound to the room acoustics.

**EQUALIZER** - Use this switch to activate the graphic **Equalizer**.

**MAIN MIX/MONITOR** - This toggles the graphic Equalizer between the **main mix** and the **monitor** mix. With the switch up (not depressed), the Equalizer is active in Stereo on the main mix, and inactive on the monitor mix. When the switch is depressed the Equalizer is active in Mono on the monitor mix, and inactive on the main mix.

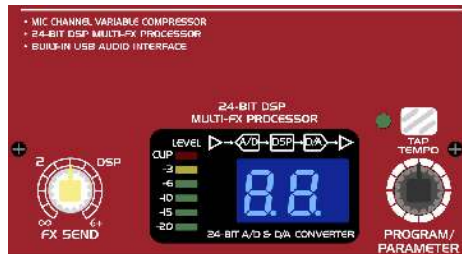
**FBQ FEEDBACK DETECTION** - The switch turns on the **FBD Feedback Detection** System. It uses the LEDs in the frequency band faders to indicate the critical frequencies. On a per-need basis, lower the frequency range in question somewhat in order to avoid feedback. The graphic Stereo Equalizer has to be turned on in order to use this function.

- At least one (ideally several) microphone channels have to be open for feedback to occur.

Feedback is particularly common when stage monitors (“wedges”) are concerned, because monitors project sound in the direction of microphones. Therefore, you can also use the FBD Feedback Detection for monitors by placing the Equalizer in the monitor Bus (see MAIN MIX/MONITOR).

## 4. Digital Effects Processor

**24-BIT MULTI-EFFECTS PROCESSOR** - Here you can find a list of all presets stored in the multi-effects processor. This built-in effects module produces high-grade standard effects such as reverb, chorus, flanger, delay and various combination effects (Full List on page 22). Use the AUX Send FX on the channels and the AUX Send FX master control to determine the Input signal of the effects processor.



AXS-14

Fig. 4.1: Digital Effects Module

The built-in Stereo Effects Processor has the advantage that it does not need to be wired up. This excludes the danger of humming or level mismatch right from the start and thus considerably facilitates use.

These effect presets are classical “mixing effects”. If you move the STEREO AUX RETURN FX (FX TO MAIN for the AXS-8 Only) control, you mix the channel signal (dry) and the effect signal. You can control the balance between the two signals with the channel fader and the STEREO AUX RETURN FX control.

**FXOUT** - Models AXS-16 and AXS-18 have a separate Output for the effects device, which is unbalanced and Stereo (tip = left signal; ring = right signal; sleeve = ground/shielding). Thus, you can record, for example, a vocal track enhanced with reverb in parallel to a “dry” vocal track; when doing the mix-down later on, you can freely determine the amount of reverb added.

- The AXS-18 has the effect Output on the rear, AXS-16 has it located next to the AUX Sends on the front panel.

**FX FOOTSW.** - Connect a momentary foot switch to the foot switch jack and use this to switch the Effects Processor on and off. A light at the bottom of the display indicates whether the Effects Processor has been muted by the foot switch.

- In Figure 6.1 you will see the illustration showing how to connect your foot switch correctly.

**LEVEL** - The LED **Level** Meter on the effects module should display a sufficiently high level. Take care to ensure that the Clip LED only lights up at peak levels. If it is lit constantly, you are overloading the Effects Processor and this could cause unpleasant distortion.

**PROGRAM/PARAMETER** - You can select the effect preset by turning the **PROGRAM** control. The display flashes with the number of the current preset. To recall the selected preset, press on the button; the flashing stops. You can also recall the selected preset with the foot switch. This control also adjusts the main effect **PARAMETER**. Press once and the light flashes. At this point you, can adjust reverb time, delay time, pitch, etc, depending on the effect selected. When the light stops flashing, it has returned to program select mode.

**TAP TEMP** - This button allows you to tap in the tempo for delay settings of the delay and echo programs. The light will flash at the tempo tapped in.

Refer to the following, for a full list of DSP Effects:

- |                      |                     |
|----------------------|---------------------|
| 1: Hall              | 9: Echo             |
| 2: Room              | 10: Chorus          |
| 3: Plate             | 11: Flanger         |
| 4: Gated             | 12: Phaser          |
| 5: Reverse           | 13: Detune          |
| 6: Early Reflections | 14: Pitch Shifter   |
| 7: Ambience          | 15: Delay + Reverb  |
| 8: Delay             | 16: Chorus + Reverb |



AXS-14

Fig. 4.2: Digital Effects List



## 5. Rear Panel Connectors

### 5.1 Main Mix Outputs, Insert Points and Control Room Outputs



Fig. 5.1: Main Mix Outputs, Main Mix Insert Points ALT 3-4 (AXS-8 Only) and Control Room Outputs

**MAIN OUTPUTS** - The **MAIN Outputs** carry the MAIN MIX signal and are on balanced XLR jacks with a nominal level of +4 dBu. In parallel with this, 1/4" phone jacks carry the main mix signal in a balanced format (AXS-10: here, the phone jack Outputs are unbalanced and located on the front panel).

**ALT 3-4 OUTPUTS (AXS-8 Only)** - The **ALT 3-4 Outputs** are unbalanced and carry the signals of the channels that you have assigned to this group using the MUTE switch. This can be used to route a subgroup to a further mixing console for example, or it could be used as a recording Output working in tandem with the main Output.

**CONTROL ROOM OUTPUTS (CTRL OUT)** - The **Control Room Output** is normally connected to the monitoring system in the control room and carries the Stereo mix or, when selected, the Solo signals.

**MAIN INS (AXS-18 only)** - These are the insert points for the main mix. In the signal path, they are post-main mix amp, but pre-main fader(s). Use them to insert, for example, a Dynamics Processor or graphic Equalizer. Please also note the information on insert points in chapter 5.3.

### 5.2 Subgroup Outputs

**SUB OUTPUTS** - The **Subgroup Outputs** are unbalanced and provide the mix of those channels assigned to each subgroup with the SUB switch (AXS-18: switches 1-2 or 3-4) next to the channel faders. Thus, you can, for example, route a subgroup to a second console or use the Output as a recording Output in parallel to the main Outputs. In this way, you can record several tracks simultaneously.

## 5.3 Inserts



AXS-10

Fig. 5.2: Insert Points

Insert points are very useful to process channel signals with Dynamic Processors or Equalizers. Unlike reverb or other effects devices, whose signals are usually added to the dry signal, Dynamic Processors are most effective on the complete signal. In this case, AUX Send paths are a less-than-perfect solution. It is better to interrupt the signal path and insert a Dynamic Processor and/or Equalizer. After processing, the signal is routed back to the console at precisely the same point it left. However, the channel signal path is interrupted only if a plug is inserted into the corresponding jack (Stereo phone plug: tip = signal Output; ring = Return Input). All Mono Input channels are equipped with inserts. They are pre-fader, pre-EQ and pre-AUX Send. Inserts can also be used as pre-EQ direct Outputs, without interrupting the signal path. To this end, you will need a cable fitted with Mono phone plugs on the tape machine or effect device end, and a bridged Stereo phone plug on the console side (tip and ring connected).

## 5.4 Direct Outputs (AXS-18 Only)



AXS-18

Fig. 5.3: Direct Outputs

**DIRECT OUTPUTS** - The direct Outputs of the AXS-18 (1 each per Mono Input channel) are ideal for recording if several tracks are to be recorded simultaneously. These unbalanced phone jacks are post-EQ, post-mute and post-fader.

## 5.5 USB Input/Output



Fig. 5.4: USB Input/Output

The AXS series mixer line has built-in USB connectivity, allowing Stereo signals to be sent to and from the mixer and a computer. The audio sent from the mixer to a computer is identical to the MAIN MIX. Audio being sent to the mixer from a computer can be routed to the main mix with the 2-TR/USB TO MAIN button. Connect the USB type B plug into the USB jack on the mixer, and the other end into a free USB port on your computer. There are no other required drivers, but we recommend that PC users install the included ASIO driver. You can record to most any computer recording software such as Audacity.

## 5.6 Voltage Supply, Phantom Power Supply and Fuse



All Models

Fig. 5.5: Voltage Supply and Fuse

**FUSE HOLDER/IEC MAINS RECEPTACLE** - The console is connected to the mains via the cable supplied, which meets the required safety standards. Blown fuses must only be replaced by fuses of the same type and rating. The mains connection is made via a cable with IEC mains connector. An appropriate mains cable is supplied with the equipment.

**POWER switch** - Use the **POWER** switch to turn on the mixing console. The POWER switch should always be in the “Off” position when you are about to connect your unit to the mains.

To disconnect the unit from the mains, pull out the main cord plug. When installing the product, ensure that the plug is easily accessible. If mounting in a rack, ensure that the mains can be easily be disconnected by a plug pull or by a disconnect switch on or near the rack.

- **Attention!:** The POWER switch does not fully disconnect the unit from the mains. Unplug the power cord completely when the unit is not used for prolonged periods of time.

**PHANTOM switch** - The **PHANTOM switch** activates the Phantom Power (necessary to operate condenser microphones) on the XLR sockets of the Mono channels. The red **+48 V** LED illuminates when Phantom Power is on. As a rule, dynamic microphones can still be used with Phantom Power, provided that they are wired in a balanced configuration. In case of doubt, contact the microphone manufacturer!

- Connect microphones before you switch on the Phantom Power supply. Please do not connect microphones to the mixer (or the stagebox/wallbox) while the Phantom Power supply is switched on. In addition, the monitor/PA loud-speakers should be muted before you activate the Phantom Power supply. After switching on, wait approx. one minute to allow for system stabilization.

### **CAUTION!**

Please also note the information given in chapter 6.1.1 “Audio Connections”.

## 6. Installation

### 6.1 Cable Connections

You will need a large number of cables for the various connections of the console. The illustrations below show the wiring of these cables. Be sure to use only high-grade cables.

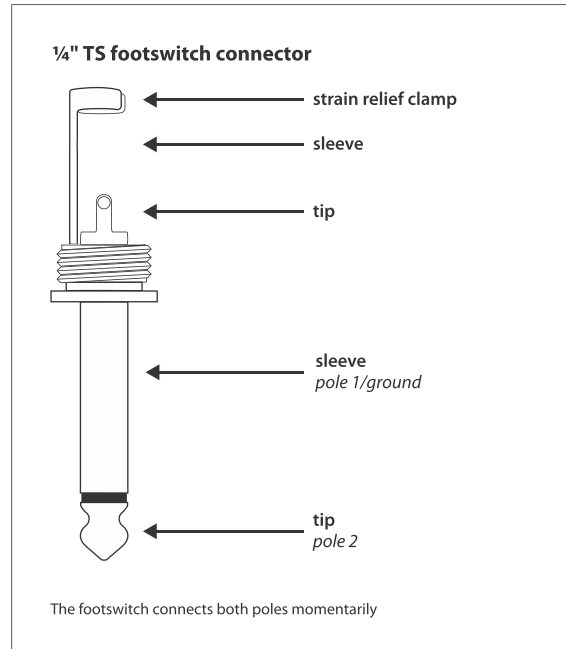


Fig. 6.1: Foot Switch Connector

### 6.1.1 Audio Connections

Please use commercial RCA cables to wire the 2-track Inputs and Outputs. You can, of course, also connect unbalanced devices to the balanced Input/Outputs. Use either Mono plugs, or use Stereo plugs to link the ring and shaft (or pins 1 & 3 in the case of XLR connectors).

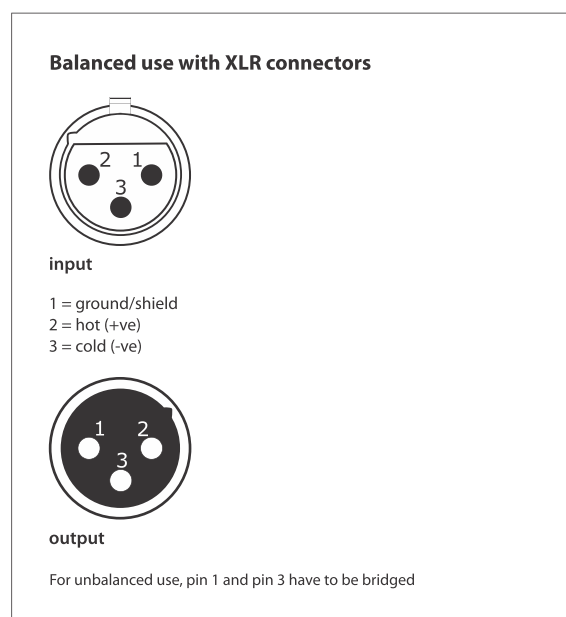


Fig. 6.2: XLR Connections

**CAUTION!**

You must never use unbalanced XLR connectors (PIN 1 and 3 connected) at the MIC Input jacks if you want to use the Phantom Power supply.

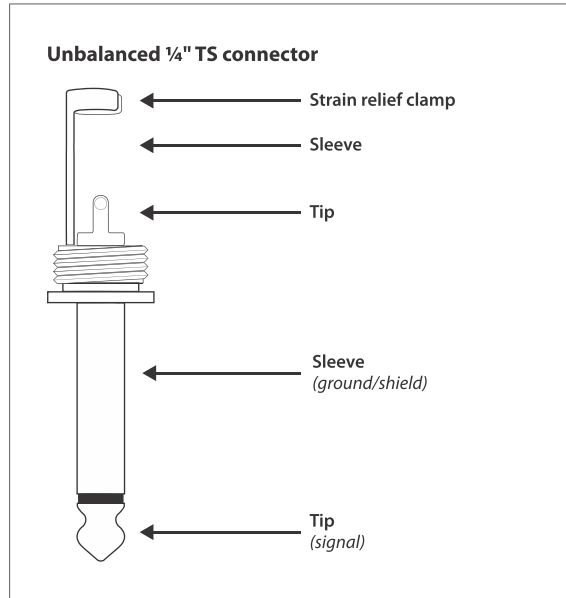


Fig. 6.3: 1/4" Mono Plug

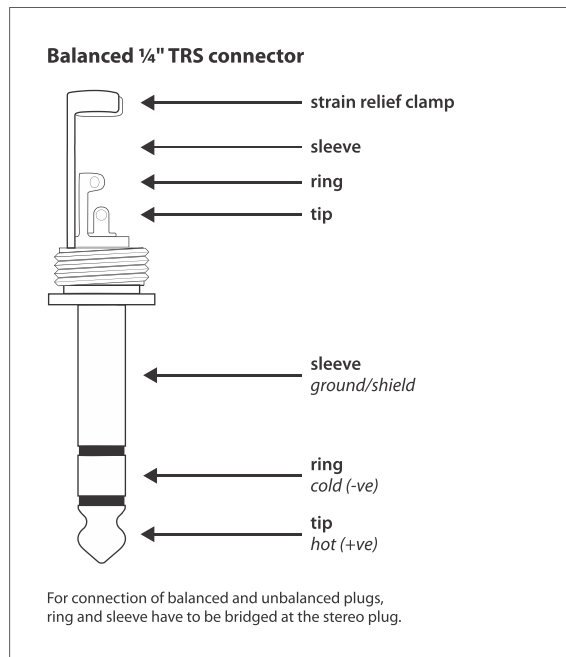


Fig. 6.4: 1/4" Stereo Plug

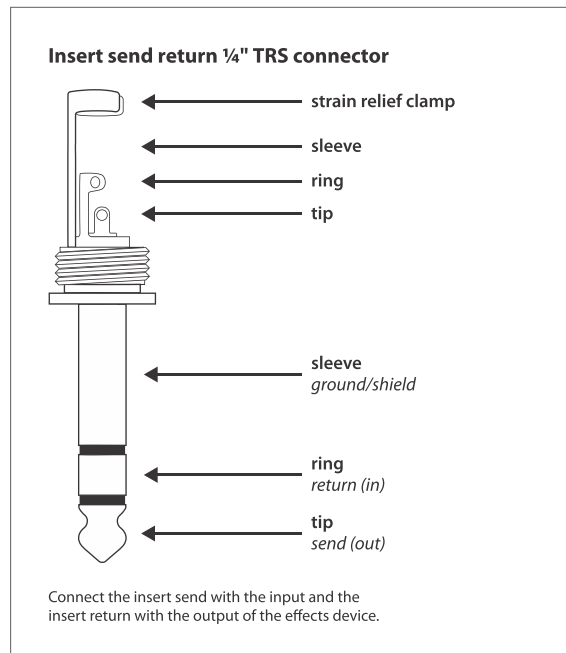


Fig. 6.5: Insert Send/Return Stereo Plug

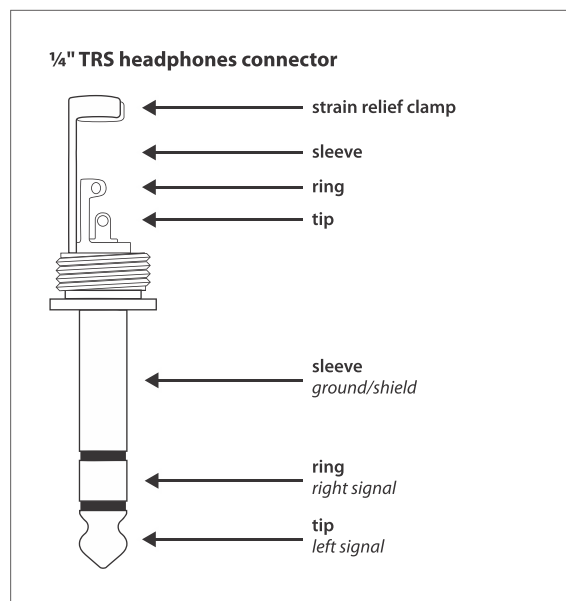


Fig. 6.6: Stereo Plug for Headphones Connection

## 7. Features Matrix

The following is the Features Matrix to easily compare the different AXS Mixers:

| Model  | Inputs | XLR | Stereo | Mono Input EQ Type | Stereo Input EQ Type | AUX | Sub Groups |
|--------|--------|-----|--------|--------------------|----------------------|-----|------------|
| AXS-8  | 8      | 4   | 2      | 3 Band             | 3 Band               | 2   | N/A        |
| AXS-10 | 12     | 4   | 4      | 3 Band Sweep Mid   | 3 Band               | 2   | 2          |
| AXS-14 | 14     | 6   | 4      | 3 Band Sweep Mid   | 3 Band               | 3   | 2          |
| AXS-16 | 16     | 8   | 4      | 3 Band Sweep Mid   | 4 Band               | 3   | 2          |
| AXS-18 | 18     | 10  | 4      | 3 Band Sweep Mid   | 4 Band               | 4   | 4          |

# Specifications

## 8. Specifications

### Microphone Inputs (Mic Preamp)

**Type:** XLR, Electronically Balanced, Discrete Input Circuit

#### MicE.I.N. (20 Hz - 20 kHz)

**@ 0  $\Omega$  Source Resistance:** -134 dB / 135.7 A-weighted

**@ 50  $\Omega$  Source Resistance:** -131 dB / 133.3 dB A-weighted

**@ 150  $\Omega$  Source Resistance:** -129 dB / 130.5 dB A-weighted

**Frequency Response:** <10 Hz - 150 kHz (-1 dB),  
<10 Hz - 200 kHz (-3 dB)

**Gain Range:** +10 to +60 dB

**Max. Input Level:** +12 dBu @ +10 dB Gain

**Impedance:** Approx. 2.6 k $\Omega$  Balanced

**Signal-to-Noise Ratio:** 110 dB / 112 dB A-weighted  
(0 dBu In @ +22 dB Gain)

**Distortion (THD+N):** 0.005% / 0.004% A-weighted

### Line Input

**Type:** 1/4" TRS Connector Electronically Balanced

**Impedance:** Approx. 20 k $\Omega$  Balanced  
10 k $\Omega$  Unbalanced

**Gain Range:** -10 to + 40 dB

**Max. Input Level:** 30 dBu

### Fade-out Attenuation<sup>1</sup> (Crosstalk Attenuation)

**Main Fader Closed:** 90 dB

**Channel Muted:** 89 dB

**Channel Fader Closed:** 89 dB

### Frequency Response

#### Microphone Input to Main Out

<10 Hz - 90 kHz +0 dB / -1 dB

<10 Hz - 160 kHz +0 dB / -3 dB

### Stereo Inputs

**Type:** 1/4" TRS Connector,  
Electronically Balanced

**Impedance:** Approx. 20 k $\Omega$

**Max. Input Level:** +22 dBu

### EQ Mono Channels

**Low:** 80 Hz /  $\pm 15$  dB

**Mid:** (AXS-8: 2.5 kHz /  $\pm 15$  dB) 100 Hz - 8 kHz /  $\pm 15$  dB

**High:** 12 kHz /  $\pm 15$  dB



## **EQ Stereo Channels**

|                          |                       |
|--------------------------|-----------------------|
| <b>Low:</b>              | 80 Hz / $\pm 15$ dB   |
| <b>Low Mid:</b>          | 500 Hz / $\pm 15$ dB  |
| <b>Mid (AXS-8 Only):</b> | 2.5 kHz / $\pm 15$ dB |
| <b>High Mid:</b>         | 3 kHz / $\pm 15$ dB   |
| <b>High:</b>             | 12 kHz / $\pm 15$ dB  |

## **AUX Sends**

|                           |                               |
|---------------------------|-------------------------------|
| <b>Type:</b>              | 1/4" TS Connector, Unbalanced |
| <b>Impedance:</b>         | Approx. 120 $\Omega$          |
| <b>Max. Output Level:</b> | +22 dBu                       |

## **Stereo AUX Returns**

|                          |   |
|--------------------------|---|
| <b>Type:</b>             | 1/4" TRS Connector,<br>Electronically Balanced            |
| <b>Impedance:</b>        | Approx. 20 k $\Omega$ Balanced / 10 k $\Omega$ Unbalanced |
| <b>Max. Input Level:</b> | +22 dBu   |

## **Main Outputs**

|                           |  |
|---------------------------|--|
| <b>Type:</b>              | XLR, Electronically Balanced and 1/4" TRS Balanced   |
| <b>AXS-10 Only:</b>       | 1/4" TS Connector Unbalanced                         |
| <b>Impedance:</b>         | Approx. 240 $\Omega$ Symm. / 120 $\Omega$ Unbalanced |
| <b>Max. Output Level:</b> | +28 dBu, +22 dBu (AXS-10)                            |

## **Control Room Outputs**

|                           |                              |
|---------------------------|------------------------------|
| <b>Type:</b>              | 1/4" TS Connector Unbalanced |
| <b>Impedance:</b>         | Approx. 120 $\Omega$         |
| <b>Max. Output Level:</b> | +22 dBu                      |

## **Headphones Outputs**

|                           |                                  |
|---------------------------|----------------------------------|
| <b>Type:</b>              | 1/4" TRS Connector, Unbalanced   |
| <b>Max. Output Level:</b> | +19 dBu / 150 $\Omega$ (+25 dBm) |

|              |             |
|--------------|-------------|
| <b>Meter</b> | 3 Color LED |
|--------------|-------------|

## **DSP**

|                       |  |
|-----------------------|--|
| <b>Converter:</b>     | 24-bit Sigma-Delta,<br>64/128-Times Oversampling |
| <b>Sampling Rate:</b> | 40 kHz   |

## **USB**

|                     |               |
|---------------------|---------------|
| <b>Audio:</b>       | Stereo In/Out |
| <b>Connector:</b>   | Type B        |
| <b>Converter:</b>   | 16-bit        |
| <b>Sample Rate:</b> | 48 kHz        |

## Main Mix System Data<sup>2</sup>

### Noise

Main Mix @ -00

Channel Fader @ -00 -101 dB  
-100 dB (AXS-18)

Main Mix @ 0 dB,

Channel Fader @ -00 -93 dB  
-96 dB (AXS-10)  
-87 dB (AXS-18)

Main Mix @ 0 dB,

Channel Fader @ 0 dB -81 dB  
-83 dB (AXS-10)  
-80 dB (AXS-18)

### Power Supply

Mains Voltage: 100 to 240~, 50/60 Hz

Power Consumption: 40 W (AXS-8)  
50 W (AXS-10)  
50 W (AXS-14)  
50 W (AXS-16)  
50 W (AXS-18)

Fuse: 100 - 240 V~: T 1.6 A H 250 V

Mains Connection: Standard IEC Receptacle

### Dimensions

|                  |                         |                      |
|------------------|-------------------------|----------------------|
| <b>AXS-8:</b>    | 4.41" x 12.64" x 15.75" | (112 x 321 x 400 mm) |
| <b>AXS-10:</b>   | 4.57" x 14.88" x 16.46" | (116 x 378 x 418 mm) |
| <b>AXS-10RM:</b> | 4.57" x 19" x 16.46"    | (116 x 483 x 418 mm) |
| <b>AXS-14:</b>   | 4.65" x 19.1" x 17.44"  | (118 x 483 x 443 mm) |
| <b>AXS-16:</b>   | 4.65" x 19.1" x 17.44"  | (118 x 483 x 443 mm) |
| <b>AXS-16RM:</b> | 4.65" x 19" x 17.44"    | (118 x 483 x 443 mm) |
| <b>AXS-18:</b>   | 5.12" x 19.53" x 19.1"  | (130 x 496 x 485 mm) |
| <b>AXS-18RM:</b> | 5.12" x 19" x 19.1"     | (130 x 483 x 485 mm) |

### Weight

|                  |         |            |
|------------------|---------|------------|
| <b>AXS-8:</b>    | 9.6 lb  | (4.36 kgs) |
| <b>AXS-10:</b>   | 11.7 lb | (5.31 kgs) |
| <b>AXS-10RM:</b> | 11.7 lb | (5.31 kgs) |
| <b>AXS-14:</b>   | 15 lb   | (6.8 kgs)  |
| <b>AXS-16:</b>   | 15.3 lb | (6.95 kgs) |
| <b>AXS-16RM:</b> | 15.3lb  | (6.95 kgs) |
| <b>AXS-18:</b>   | 18 lb   | (8.14 kgs) |
| <b>AXS-18RM:</b> | 18 lb   | (8.14 kgs) |

Measuring conditions:

1: 1 kHz rel. to 0dBu; 20 Hz - 20 kHz; line input; main output; unity gain.

2: 20 Hz - 20 kHz; measured at main output Channels 1 - 4 unity gain; EQ flat all channels on main mix; channels 1/3 as far left as possible, channels 2/4 as far right as possible. Reference = +6 dBu.





MAKERS OF THE ORIGINAL  
HOT SPOT PERSONAL MONITOR



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## ***THREE YEAR LIMITED WARRANTY***

**WARRANTY Information can be viewed online at  
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# **AXS**

**ANALOG AUDIO MIXERS**

# **AXS Mixers**

Specifications in this manual are subject to change without notice.  
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