



## User Manual



# XENYX QX1202USB/QX1002USB

Premium 12/10-Input 2-Bus Mixer with XENYX Mic Preamps & Compressors, British EQs, KLARK TEKNIK Multi-FX Processor and USB/Audio Interface



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## Thank you

Congratulations! In purchasing our XENYX QX1202USB/QX1002USB you have acquired a mixing console whose small size belies its incredible versatility and audio performance.

The BEHRINGER XENYX mixing console offers you premium-quality microphone preamplifiers with optional phantom power supply, balanced line inputs and the ability to connect external effects processors. Because of its extensive and carefully thought-out routing possibilities, your XENYX lends itself equally to both live and studio use.

**EN Important Safety Instructions**

Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock.

Use only high-quality professional speaker cables with ¼" TS or twist-locking plugs pre-installed. All other installation or modification should be performed only by qualified personnel.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.

**Caution**

To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside. Refer servicing to qualified personnel.

**Caution**

To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.

**Caution**

These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

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 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.

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. Use only attachments/accessories specified by the manufacturer.



12. Use only with the 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. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.

16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.



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## 1. Introduction

The XENYX Series represents a milestone in the development of mixing console technology. With the new XENYX microphone preamps including phantom power as an option, balanced line inputs and a powerful effects section, the mixing consoles in the XENYX Series are optimally equipped for live and studio applications. Owing to state-of-the-art circuitry your XENYX console produces a warm analog sound that is unrivalled. With the addition of the latest digital technology these best-in-class consoles combine the advantages of both analog and digital technology.

The microphone channels feature high-end XENYX 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 fullest, thereby maintaining optimal audio quality

### “British EQ”

The equalizers used for the XENYX Series are based on the legendary circuitry of top-notch consoles made in Britain, which are renowned throughout the world for their incredibly warm and musical sound character. Even with extreme gain settings these equalizers ensure outstanding audio properties.

### KLARK TEKNIK FX Processor

Additionally, your XENYX mixing console has a KLARK TEKNIK effects processor with 24-bit A/D and D/A converters included, which gives you 100 presets producing first-class reverb, delay and modulation effects plus numerous multi-effects in excellent audio quality.



### Caution!

- ◆ We should 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 control and PHONES control in the main section fully counterclockwise before you switch on the unit. Always be careful to set appropriate volume levels.

## 1.1 General mixing console functions

A mixing console fulfils three main functions:

- **Signal processing:**

#### Preamplification

Microphones convert sound waves into voltage that has to be amplified several-fold; then, this voltage is turned into sound that is reproduced in a loudspeaker. 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. The XENYX 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.

- **Signal distribution:**

Individual, processed signals from the channel strips are compiled on busses and are fed into the main section for further processing. Connections for recording equipment, power amplifiers, headphones as well as RCA connectors are available here. The mix is sent to the internal FX processors or external effects processors via aux sends and returns. Similarly, a mix can be created for the musicians on the stage (monitor mix).

- **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 interface of BEHRINGER mixing consoles is optimized for these tasks, enabling you to easily keep track of the signal path.

## 1.2 Before you get started

### 1.2.1 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 that 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.
- ◆ To assure optimal protection of your XENYX during use or transport, we recommend utilizing a carrying case.
- ◆ Please always use the original packaging to avoid damage due to storage or shipping.
- ◆ Never let unsupervised children play with the XENYX or with its packaging.
- ◆ Please dispose of all packaging materials in an environmentally-friendly fashion.

### 1.2.2 Initial operation

Be sure that there is enough space around the unit for cooling purposes and to avoid overheating please do not place your mixing console on high-temperature equipment such as radiators or power amps.

- ◆ Never connect the XENYX to the power supply unit when the latter is connected to the mains! First connect the power supply unit to the console, then connect the power supply unit to the mains.
- ◆ Please make sure that all units have a proper ground connection. For your own safety, never remove or disable the ground conductor from the unit or on the AC power cord. The unit should always be connected to a mains socket outlet with a protective earthing connection.
- ◆ When installing the product, ensure the appliance coupler or power cord is easily accessible for disconnecting the unit from mains.

### 1.2.3 Online registration

Please register your new BEHRINGER equipment right after your purchase by visiting <http://behringer.com> and read the terms and conditions of our warranty carefully.

Should your BEHRINGER product malfunction, it is our intention to have it repaired as quickly as possible. To arrange for warranty service, please contact the BEHRINGER retailer from whom the equipment was purchased. Should your BEHRINGER dealer not be located in your vicinity, you may directly contact one of our subsidiaries. Corresponding contact information is included in the original equipment packaging (Global Contact Information/European Contact Information). Should your country not be listed, please contact the distributor nearest you. A list of distributors can be found in the support area of our website (<http://behringer.com>).

Registering your purchase and equipment with us helps us process your repair claims more quickly and efficiently.

Thank you for your cooperation!

## 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 channels

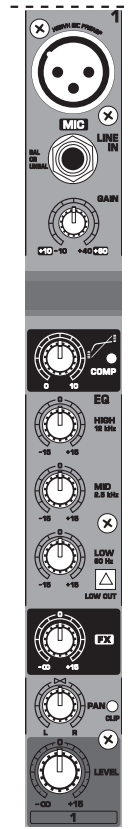


Fig. 2.1: Connectors and controls on the mono channels

#### 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 XENYX preamps provide undistorted and noise-free gain as is typically known only from costly outboard preamps.

- ◆ Please mute your playback system before you activate the phantom power supply to prevent switch-on thumps being directed to your loudspeakers. Please also note the instructions in chapter 2.4 "Main section".

#### LINE IN

Each mono input also features a balanced line input on a 1/4" connector. Unbalanced devices (mono connectors) can also be connected to these inputs.

- ◆ Please remember that you can only use either the microphone or the line input of a channel at any one time. You can never use both simultaneously!

## GAIN

Use the **GAIN** control to adjust the input gain. This control should always be turned fully counterclockwise whenever you connect or disconnect a signal source to one of the inputs.

The scale has 2 different value ranges: the first value range (+10 to +60 dB) refers to the MIC input and shows the amplification for the signals fed in there.

The second value range (-10 to +40 dBu) refers to the line input and shows its sensitivity. The settings for equipment with standard line-level signals (-10 dBV or +4 dBu) look like this: While the GAIN control is turned all the way down, connect your equipment. Set the GAIN control to the external devices' standard output level. If that unit has an output signal level display, it should show 0 dB during signal peaks. For +4 dBu, turn up GAIN slightly, for -10 dBV a bit more. Tweaking is done using the CLIP LED.

## COMP

Use the COMP knob to adjust the amount of compression effect on the channel. Compression limits the dynamic range of the audio source, which can help vocals cut through a mix better, for example. Turn the COMP knob clockwise until the adjacent LED occasionally lights during speech/singing.

## EQ

All mono input channels include a 3-band equalizer. All bands provide boost or cut of up to 15 dB. In the central position, the equalizer is inactive.

The circuitry of the British EQs is based on the technology used in the best-known top-of-the-line consoles and providing a warm sound without any unwanted side effects. The result are extremely musical equalizers which, unlike simple equalizers, cause no side effects such as phase shifting or bandwidth limitation, even with extreme gain settings of  $\pm 15$  dB.

The upper (HIGH) and the lower band (LOW) 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 band are 12 kHz and 80 Hz respectively. The mid band is configured as a peak filter with a center frequency of 2.5 kHz. Unlike shelving filters, the peak filter processes a frequency range that extends upwards and downwards around its middle frequency.

## LOW CUT

In addition, the mono channels are equipped with a steep **LOW CUT** filter designed to eliminate unwanted low-frequency signal components. These can be noises created by hand-held microphones, subsonic noise or plosive sounds created by highly sensitive microphones.

## FX

FX sends enable you to feed signals via a variable control from one or more channels and sum these signals to a bus. The bus appears at the console's FX send output and can be fed from there to an external effects device. The return from the effects unit is then brought back into the console on the stereo channels. Each FX send is mono and features up to +15 dB gain.

As the name suggests, the **FX** sends of the XENYX mixing consoles are intended to drive effects devices (reverb, delay, etc.) and are therefore configured post-fader. With XENYX mixing consoles, the channel fader is called LEVEL control.

In the QX1002/1202USB, the FX send is routed directly to the built-in effects processor. To make sure that the effects processor receives an input signal, you shouldn't turn this control all the way to the left ( $-\infty$ ).

## PAN

The **PAN** control determines the position of the channel signal within the stereo image. This control features a constant-power characteristic, which means the signal is always maintained at a constant level, irrespective of position in the stereo panorama.

## LEVEL

The **LEVEL** control determines the level of the channel signal in the main mix.

♦ **Attention:** Since the FX path for the effect processor is connected post-fader, the LEVEL control has to be turned up in order to get this channel's signal to the effects processor!

## CLIP

The **CLIP**-LED's of the mono channels illuminate when the input signal is driven too high, which could cause distortion. If this happens, use the GAIN control to reduce the preamp level until the LED does not light anymore.

## 2.2 Stereo channels



Fig. 2.2: Connectors and controls on the stereo channels

## LINE IN

Each stereo channel has two balanced line level inputs on 1/4" connectors for left and right channels. If only the connector marked "L" (left) is used, the channel operates in mono. The stereo channels are designed to handle typical line level signals. Both inputs will also accept unbalanced connectors.

## FX

The FX send of the stereo channels functions similar to that of the mono channels. However, since the FX send bus is mono, a mono sum is first taken from the stereo input before it is sent to the FX bus.

## BAL

The **BAL(ANCE)** control determines the levels of left and right input signals relative to each other before both signals are then routed to the main stereo mix bus. If a channel is operated in mono via the left line input, this control has the same function as the PAN control used in the mono channels.

## LEVEL

The **LEVEL** control determines the volume of the channel being sent to the main mix.

### +4/-10

The stereo inputs of the XENYX have an input sensitivity switch which selects between **+4 dBu** and **-10 dBV** (home-recording level), the input is more sensitive (requires less level to drive it) than at +4 dBu (studio level).

## 2.3 Connector array of the main section



Fig. 2.3: Connectors of the main section

## FX SEND

The **FX SEND** connector outputs the signal you picked up from the individual channels using the FX controls. You can connect this to the input of an external effects device in order to process the FX bus' master signal. Once an effects mix is created, the processed signal can then be routed from the effects device outputs back into a stereo input.

- ◆ If the connected effects processor receives no input signal, the FX SEND control is probably too low. This also goes for the built-in effects processor.
- ◆ Adjust your external effects processor to 100% wet (effects signal only), because the effects signal is added to the main mix along with the "dry" channel signals.
- ◆ In this instance, the FX control of the channel being used as an effects return should be turned fully counterclockwise, otherwise feedback problems can occur!

## PHONES/CTRL ROOM OUT

The stereo **PHONES** connector (at the top of the connector panel) is where headphones are connected. The balanced **CTRL ROOM OUT** connectors carry the summed effects and main mix signals. The PHONES/CONTROL ROOM control in the main section adjusts the level of both headphones and main monitor outputs.

## MAIN OUT

The **MAIN OUT** connectors are balanced mono connectors. The main mix signal appears here at a level of 0 dBu. The **MAIN MIX** fader adjusts the volume of these outputs.

## 2-TRACK INPUT

The **2-TRACK INPUTS** are used to bring an external signal source (e.g. CD player, tape deck, etc.) into the console. They can also be used as a standard stereo line input, so the output of a second XENYX or BEHRINGER ULTRALINK PRO MX882 can be connected. Alternatively the line or tape output of a hi-fi amplifier with source selection switch could also be hooked up here, allowing you to easily listen to additional sources (e.g. CD player, MP3 player, sound card etc.).

## 2-TRACK OUTPUT

These connections are laid out as RCA connectors and are wired parallel to MAIN OUT. Connect the inputs of a computer sound card or a recorder here. The output signal level is set up using the highly accurate MAIN MIX fader.

## 2.4 Main section

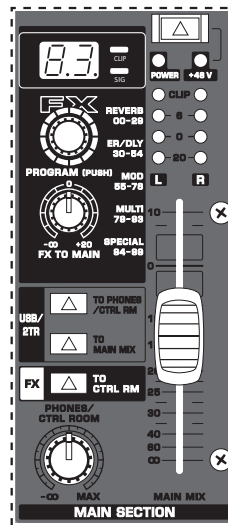


Fig. 2.4: Control elements of the main section

### +48 V

The red "+48 V" LED lights up when the phantom power is turned on. Phantom power is required to operate condenser microphones and is activated using the +48 V switch located above the +48 V LED.

- ◆ 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 loudspeakers should be muted before you activate the phantom power supply. After switching on, wait approx. one minute to allow for system stabilization.
- ◆ Caution! You must never use unbalanced XLR connectors (PIN 1 and 3 connected) on the MIC input connectors if you want to use the phantom power supply.

## POWER

The **POWER LED** indicates that the console is powered on.

## LEVEL INDICATOR

The 4-segment display accurately displays the relevant signal level.

**LEVEL SETTING:**

To correctly set the gains of the channels, first set the LEVEL controls of the input channels to their center positions. Then use the GAIN controls to increase the input amplification until signal peaks show 0 dB on the level meter.

When recording to digital recorders, the recorder's peak meter should not go into overload. While analog recorders can be overloaded to some extent, creating only a certain amount of distortion, digital recorders distort quickly when overloaded. In addition, digital distortion is not only undesirable, but also renders your recording completely useless.

- ◆ The CLIP-LED's of your XENYX display the level virtually independent of frequency. A recording level of 0 dB is recommended for all signal types.

**MAIN MIX**

Use the **MAIN MIX** fader to adjust the volume of the main out.

**PHONES/CONTROL ROOM**

Use the **PHONES/CONTROL ROOM** control to adjust the signal level of the CONTROL ROOM and PHONES outputs.

**USB/2TR TO MAIN MIX**

When the **USB/2TR TO MAIN MIX** switch is pressed, the 2-Track and USB inputs are assigned to the main mix, providing an additional input for MP3 players, computers, MIDI instruments or other signal sources that do not require any processing. Pressing this button automatically mutes the 2-TR OUT/USB recording signal.

**USB/2TR TO PHONES/CTRL RM**

Press the **USB/2TR TO PHONES/CTRL RM** switch if you want to monitor the 2-Track and USB inputs via the CTRL ROOM and PHONES outputs. A typical studio application of this function is recording music into a digital audio workstation (DAW) with simultaneous reproduction (see ch. 3.1).

**FX TO CONTROL**

If you want to monitor only the effects signal in your headphones or monitor speaker(s), press the **FX TO CTRL RM** switch. Now the signal of the effects processor can be monitored alone, and the main mix and/or 2-Track signal is no longer present on the phone and control room outputs.

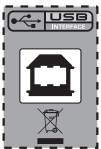
**2.5 USB Connector**

Fig 2.5: USB connector

**USB CONNECTOR**

Connect your mixer to a computer using a standard USB cable. This enables a stereo signal to be sent to and from your mixer and computer. The signal sent from the mixer to the computer is the same as the main bus. The audio returning from the computer into the mixer appears directly in the main and/or control room bus (depending on USB/2TR to MAIN and PHONES/CTRL RM buttons).

Insert 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 required drivers, but we recommend that PC users install the ASIO driver which can be downloaded from behringer.com.

NOTE: The mixer cannot be bus-powered via USB! Always use the included power adaptor to supply power to the mixer.

**2.6 Digital effects processor**

Fig. 2.6: Effects section

**100 KLARK TEKNIK EFFECTS**

The XENYX QX1202USB/QX1002USB features a built-in digital stereo effects processor designed by KLARK TEKNIK. This effects processor offers a large number of standard effects such as Hall, Chorus, Flanger, Delay and various combination effects. Using the FX control, you can feed signals into the effects processor. The integrated effects module has the advantage of requiring no wiring. This way, the danger of creating ground loops or uneven signal levels is eliminated at the outset, completely simplifying the handling.

**SIGNAL and CLIP LED**

The **SIGNAL** LED on the effects module shows the presence of a signal whose level is high enough. This LED should always be on. However, make sure that the **CLIP** LED lights up only sporadically. If it is lit constantly, you are overdriving the effects processor, which leads to unpleasant distortion. If this occurs, turn the FX controls down somewhat.

**PROGRAM**

The **PROGRAM** control has two functions: by turning the **PROGRAM** control, you dial the number of an effect. The number of the preset you just dialed up blinks in the display. To confirm your selection, press the PROGRAM control; the blinking stops.

**FX TO MAIN**

The **FX TO MAIN** control feeds the effects signal into the main mix. If the control is turned all the way counterclockwise, no effects signal is present in the sum signal of the mixing console.



## Presets List

Reverb	
00	Small Chamber
01	Mid Chamber
02	Big Chamber
03	Theater
04	Small Room 1
05	Small Room 2
06	Mid Room 1
07	Mid Room 2
08	Large Room
09	Small Hall
10	Concert Hall
11	Mid Hall
12	Big Hall
13	Ambient Hall
14	Church
15	Short Plate
16	Mid Plate
17	Long Plate
18	Gold Plate
19	Vint250Verb 1
20	Vint250Verb 2
21	Mid Spring
22	Long Spring
23	Gated Reverb Short
24	Gated Reverb Mid
25	Gated Reverb Long
26	Gated Alive
27	Reverse Short
28	Reverse Mid
29	Reverse Long

Early Reflections / Delay	
30	Short Ambience
31	Mid Ambience
32	Live Ambience
33	Big Ambience
34	Stadium
35	Early Reflections 1
36	Early Reflections 2
37	Early Reflections 3
38	Early Reflections 4
39	Slap Delay
40	Short Delay 1
41	Short Delay 2
42	Mid Delay 1
43	Mid Delay 2
44	Mid Delay 3
45	Long Delay 1
46	Long Delay 2
47	Long Delay 3
48	Stereo Delay
49	Ping-Pong Delay
50	Short Echo
51	Mid Echo 1
52	Mid Echo 2
53	Long Echo 1
54	Long Echo 2

Modulation	
55	Soft Chorus
56	Warm Chorus
57	Phat Chorus
58	Classic Flanger
59	Warm Flanger
60	Stereo Flanger
61	Classic Phaser
62	Warm Phaser
63	Heavy Phaser
64	Stereo Phaser
65	Slow Tremolo
66	Fast Tremolo
67	Panner 1
68	Panner 2
69	Detune 1
70	Detune 2
71	Minor Third Up
72	Major Third Up
73	Fifth Up
74	Fourth Down
75	Octave Down
76	Minor Chord
77	Major Chord
78	Jazzy

Multi	
79	Delay + Chorus 1
80	Delay + Chorus 2
81	Delay + Chorus 3
82	Delay + Flanger 1
83	Delay + Flanger 2
84	Delay + Pitch 1
85	Delay + Pitch 2
86	Delay + Reverb 1
87	Delay + Reverb 2
88	Delay + Reverb 3
89	Chorus + Reverb 1
90	Chorus + Reverb 2
91	Flanger + Reverb 1
92	Flanger + Reverb 2
93	Detune + Reverb

Special FX	
94	LFO Filter 1
95	LFO Filter 2
96	Talkbox 1
97	Talkbox 2
98	Overdrive
99	Distortion

## 3. Applications

### 3.1 Recording studio

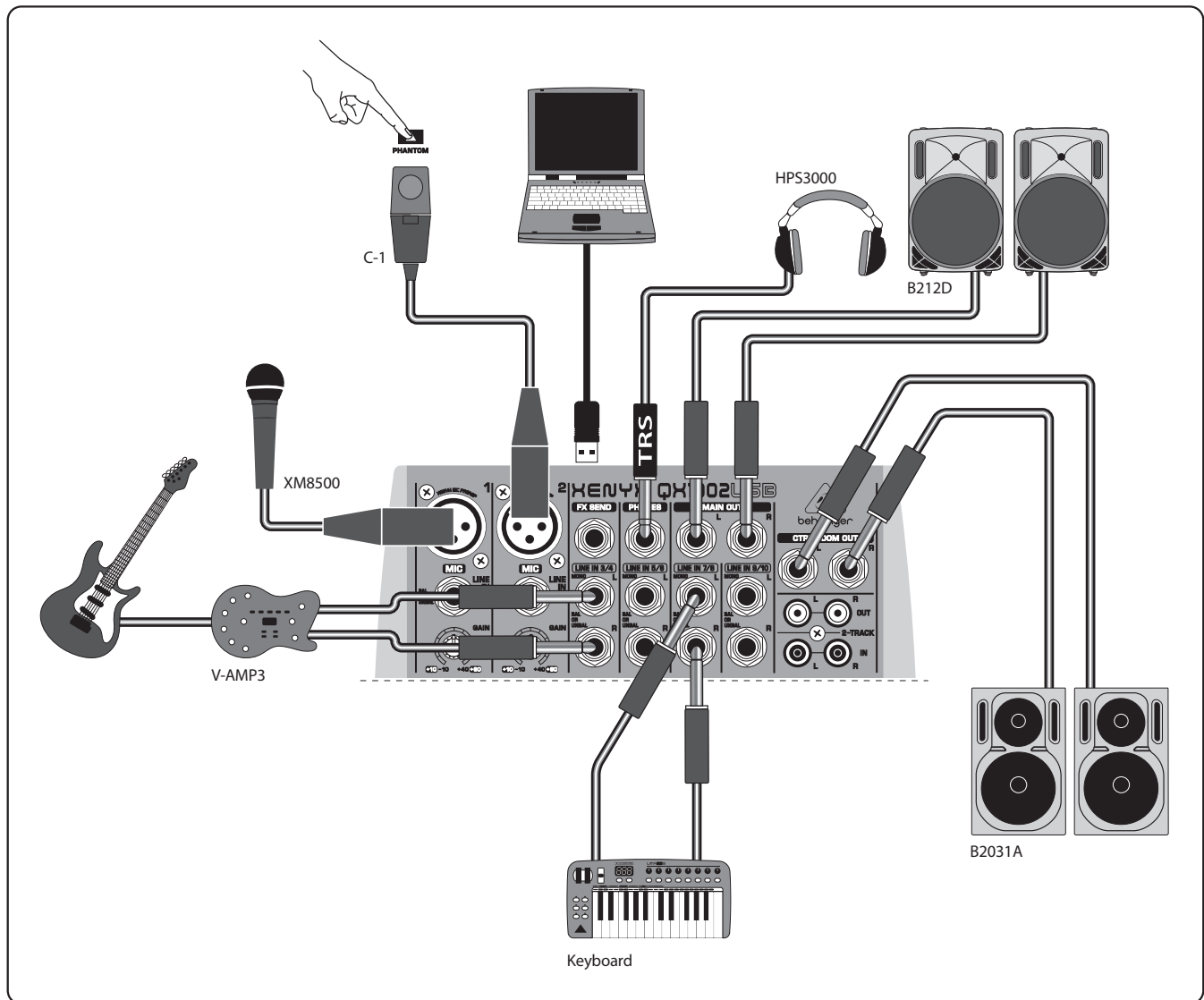


Fig 3.1: The QX1002USB in a home studio

Even though most of the tasks in a studio can nowadays be accomplished using a computer, a mixing console remains an unavoidable piece of equipment that lets you effectively manage audio inputs and outputs: microphone signals need to be pre-amplified prior to being recorded, and the quality of microphone sound is often worked on; recording and playback signals must be routed to the appropriate connectors or integrated into the mix; the volume of headphones and studio monitors needs to be adjusted, and so on. The extensively equipped main section of the XENYX mixing consoles provides concrete benefits to you.

#### Wiring:

Connect your sound sources to the microphone/line inputs of the mixing console. Connect a pair of reference speakers (optional) to the main outputs, and connect a computer to the USB connector on the rear panel. Your monitor speakers are connected to the control room outputs; the headphones are connected to the headphone output.

#### Recording and playback:

Each connected sound source is pre-amplified, EQ'ed and then routed to the main bus. You may also add one of the onboard effects to any of the signals (see Chapter 2.6). Use the LEVEL controls to adjust the relative level of your sources. The main bus is sent to your computer via USB. The performance can be recorded in your Digital Audio Workstation (DAW) and further edited with the software. To monitor the recording signal and listen back to a recorded track, press the USB/2-TR TO CTRL RM button. This sends the signal returning from your computer to monitor speakers connected to the CONTROL ROOM OUT jacks.

## 3.2 Live sound

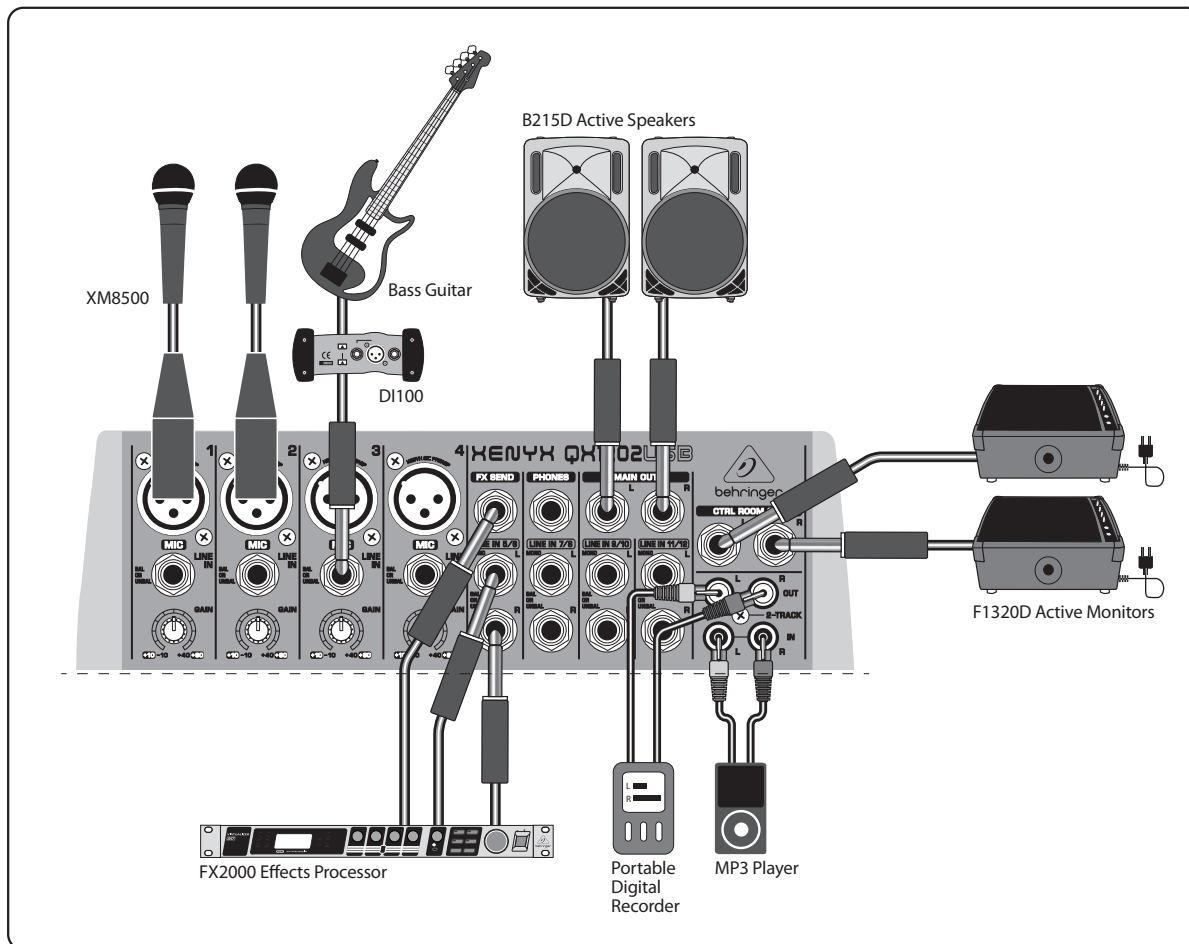


Fig 3.2: Live performance with the QX1202USB

The above diagram shows some typical connections for a live performance using the QX1202USB. Mono sources such as microphones and line-outs from guitar preamps or DI boxes can be connected to channels 1-4 via XLR or ¼" cables. Stereo sources can be connected to channels 5/6 through 11/12 via ¼" cables.

If an external effects processor is to be used instead of the onboard processor, connect the FX SEND jack to the input of your processor. Turn the FX knob up on each channel that you want to add effects to. Connect the outputs (usually stereo) from the processor to one of the stereo channels as shown in the diagram. Make sure to leave the FX knob for this stereo channel fully counterclockwise (off) to avoid feedback loops. Turn the LEVEL knob up on the stereo channel receiving the processed signal to blend the effects into the mix.

Connect the MAIN OUTPUTS to active speakers or a power amplifier. You may also connect active floor monitors to the CONTROL ROOM OUTPUTS so the on-stage talent can hear the mix. The 2-Track inputs can be used to connect an MP3 player for music between sets, and the 2-Track outputs can be used to connect a digital recorder.

## 4. Installation

### 4.1 Mains connection

#### AC POWER IN

Connect the power supply to the 3-pin mains connector on the rear of the console. Use the AC adapter supplied to connect the console to the mains. The adapter complies with all applicable safety standards.

- ◆ Please use only the power supply unit provided with the console.
- ◆ Never connect the XENYX to the power supply unit while the latter is connected to the mains! First connect the console to the power supply unit, then connect the power supply unit to the mains.
- ◆ Please note that both the power supply unit and the mixing console heat up considerably during operation. This is completely normal.

## 4.2 Audio connections

You will need a large number of cables for different applications. The illustrations below show how the connectors should be wired. Be sure to use only high-grade cables.

Please use commercial RCA cables to connect the 2-Track inputs and outputs.

You can, of course, also connect unbalanced equipment to the balanced inputs/ outputs. To do this, use either mono plugs or stereo plugs with the ring and sleeve bridged (pins 1 and 3 in the case of XLR connectors).

**Caution! Never use unbalanced XLR connectors (PIN 1 and 3 connected) on the MIC input connectors when using the phantom power supply.**

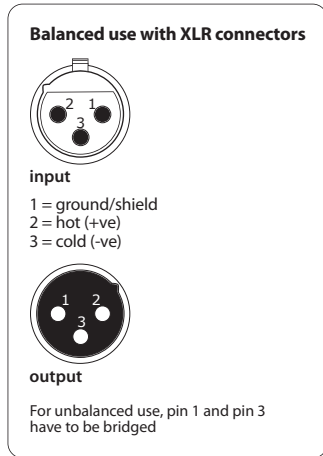


Fig. 4.1: XLR connections

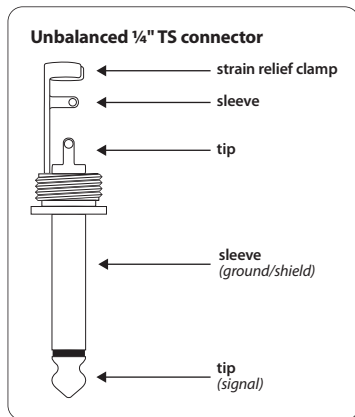


Fig. 4.2: 1/4" mono plug

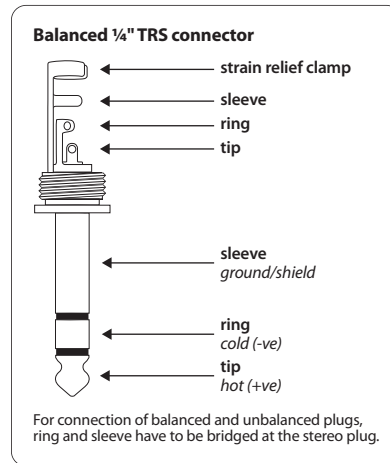


Fig. 4.3: 1/4" stereo plug

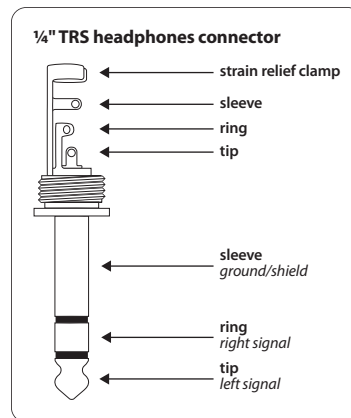


Fig. 4.4: Stereo plug for headphones connection

## 5. Specifications

	QX1202USB	QX1002USB
<b>Mono Inputs</b>		
<b>Microphone Inputs (XENYX Mic Preamp)</b>		
Type	XLR connector, balanced, discrete input circuit	
<b>Mic E.I.N. (20 Hz - 20 kHz)</b>		
@ 0 $\Omega$ source resistance	-133 dB / -137 dB A-weighted	
@ 50 $\Omega$ source resistance	-130 dB / -134 dB A-weighted	
@ 150 $\Omega$ source resistance	-127 dB / -131 dB A-weighted	
Frequency response	<10 Hz - 150 kHz (-1 dB)	
	<10 Hz - 200 kHz (-3 dB)	
Gain range	+10 dB to +60 dB	
Max. input level	+12 dBu @ +10 dB Gain	
Impedance	1.9 k $\Omega$ balanced	
Signal-to-noise ratio	107 dB / 110 dB A-weighted (0 dBu In @ +22 dB Gain)	
Distortion (THD + N)	0.006% / 0.005% A-weighted	
<b>Line Input</b>		
Type	1/4" TRS connector, balanced	
Impedance	20 k $\Omega$ balanced, 10 k $\Omega$ unbalanced	
Gain range	-10 dB to +40 dB	
Max. input level	+21 dBu @ 0 dB Gain	
<b>Stereo Inputs</b>		
Type	2 x 1/4" TRS connector, balanced	
Impedance	20 k $\Omega$ balanced, 10 k $\Omega$ unbalanced (+4 dBu operating level)	
	20 k $\Omega$ balanced, 5 k $\Omega$ unbalanced (-10 dBV)	
Gain range	+4 dBu / -10 dBV	
Max. input level	+22 dBu	
<b>2-Track In</b>		
Type	RCA connector	
Impedance	19.5	
Max. input level	+21 dBu	
<b>Equalizer</b>		
Low	80 Hz / $\pm$ 15 dB	
Mid	2.5 kHz / $\pm$ 15 dB	
High	12 kHz / $\pm$ 15 dB	
<b>Aux Sends</b>		
Type	1/4" TRS connector, balanced	
Impedance	120 $\Omega$	
Max. output level	+21 dBu	
<b>Aux Returns</b>		
Type	1/4" TRS connector, balanced	
Impedance	20 k $\Omega$ balanced, 10 k $\Omega$ unbalanced	
Max. input level	+21 dBu	
<b>Main Outputs</b>		
Type	1/4" TRS connector, balanced	
Impedance	120 $\Omega$ balanced	
Max. output level	+21 dBu	
<b>Control Room Output</b>		
Type	1/4" TRS connector, balanced	
Impedance	120 $\Omega$	
Max. output level	+21 dBu	

	QX1202USB	QX1002USB
<b>Phones Output</b>		
Type	1/4" TRS connector, unbalanced	
Max. output level	+21 dBu / 22 $\Omega$ (+25 dBm)	
<b>2-Track Out</b>		
Type	RCA connector, unbalanced	
Impedance	1 k $\Omega$	
Max. output level	+21 dBu	
<b>Main Mix System Data (Noise)</b>		
Main mix @ $-\infty$ , channel fader @ $-\infty$	-105 dB / -108 dB A-weighted	
Main mix @ 0 dB, channel fader @ $-\infty$	-93 dB / -96 dB A-weighted	
Main mix @ 0 dB, channel fader @ 0 dB	-83 dB / -85 dB A-weighted	
<b>FX Section</b>		
Type	KLARK TEKNIK	
Converter	24-bit Sigma Delta	
Sample rate	40 kHz	
<b>Power Supply</b>		
Power consumption	20 W	
<b>USA/Canada</b>	120 V~, 60 Hz	
Adapter	MXUL6	
<b>Australia</b>	230 - 240 V~, 50 Hz	
Adapter	MXSAA6	
<b>U.K./Europe</b>	230 V~, 50 Hz	
Adapter	MXUK6 / MXEU6	
<b>China/Korea</b>	220 V~, 50 Hz / 220 V~, 60 Hz	
Adapter	MXCCC6 / MXKR6	
<b>Japan</b>	100 V~, 50/60 Hz	
Adapter	MXJP6	
Output	2 x 14.8 V~, 2 x 500 mA	
<b>USB</b>		
Connector	Type B	
Sample rate	48 kHz	
<b>Physical/Weight</b>		
Dimensions (H x W x D)	50 x 250 x 248 mm (2.0 x 9.8 x 9.8")	50 x 195 x 248 mm (2.0 x 7.7 x 9.8")
Weight	1.5 kg (3.3 lbs)	1.1 kg (2.4 lbs)

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# FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION



Responsible Party Name: **MUSIC Group Services US Inc.**  
Address: **18912 North Creek Parkway,  
Suite 200 Bothell, WA 98011,  
USA**  
Phone/Fax No.: **Phone: +1 425 672 0816  
Fax: +1 425 673 7647**

## XENYX QX1202USB/QX1002USB

complies with the FCC rules as mentioned in the following paragraph:

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.

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.

### Important information:

Changes or modifications to the equipment not expressly approved by MUSIC Group can void the user's authority to use the equipment.



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