

HH
HH Audio
Q6FX
Analogue
Mixing
Console

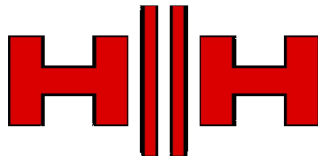


HH Audio Q6FX Analogue Mixing Console Instruction Manual

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HH Audio Q6FX Analogue Mixing Console



Product Usage Instructions

Initial Setup

POWERING ON

1. Unbox your Q6FX and inspect for any damage.
2. Plan out the required cables for your setup and ensure they are of adequate length.

SIGNAL CHECK

- Use the monitor/phones output to check each channel individually.
- For Stereo only channels without gain knobs, adjust the output volume on the input device.

Q SERIES OVERVIEW

The Q Series brings decades of British design and engineering to your audio productions. The series consists of 4 analogue mixing consoles which cover an array of live sound applications (6 channels, 8 channels, 12 channels, and 16 channels). 2in/2out USB expands the functionality of all Q Series mixers even further making these mixers a great tool for music production and recording live performances or podcasts. The Q Series' comprehensive channel strip allows you to take complete control over the tonal shape, dynamics, and depth of your mixes with low-noise mic-preamps, 3-band EQ, single knob compression, and high-quality DSP effects.



CONTROLS OVERVIEW

CHANNEL SECTION

- **MIC INPUT** – Balanced female XLR socket for low-level audio inputs typically from a microphone. Connect via a balanced cable to reduce noise, especially over long cable runs. (pin 1 = ground, pin 2 = positive signal, pin 3 = negative signal).
- **LINE INPUT** – Balanced TRS socket for mono audio inputs (for example, from an audio interface). Balanced or unbalanced cables can be used, with balanced preferred to reduce noise, especially over long cable runs.
- **PHANTOM POWER** – Use this to turn on the global phantom power (+48V) to both XLR mic inputs. Phantom power is used when connecting a condenser (active) microphone.

We recommend turning this on before plugging in any microphone(s). It is also advisable to mute/turn down the channel level to avoid any DC pops.



STEREO INPUTS (CH3-6)

L+R INPUTS – Stereo TRS inputs used for line level sources. These channels have no gain knob; the input gain is fixed to +6dB.



PREEQ CONTROLS (CHI-2)

GAIN CONTROL – Adjusts the input gain of the channel. Ranges from +5 to +45dB, however, stereo channels are padded down to -15 to +30dB.



EQ SECTION

- **HIGH** – Shelving filter at 12kHz – increase/decrease the high frequencies by +/- 15dB.
- **MID** – Peaking filter at 2.5kHz – increase/decrease the mid frequencies here by +/-15dB.
- **LOW** – Shelving filter at 100Hz – increase/decrease the low frequencies here by +/-15dB.



FX/AUX, PAN AND LEVEL CONTROLS

- **FX/AUX LEVELS** – Control the level of the signal being sent to the AUX/FX send. The aux bus is post-channel fader.
- **L/R PAN** – Controls the split of the channel between the Left and Right channels (such as the monitor and main output). Centre results in equal split, hard-left gives no output to the right channel and all to the left channel, hard-right gives no output to the left channel and all to the right channel.
- **LEVEL CONTROL** – Ranges from $-\infty$ to +10dB gain, with markers to signify the gain level. A peak LED is situated above the control to signify when the signal is clipping at the front end.



NOTE: When not using a channel, it is recommended to keep the level knob at $-\infty$ to keep noise to a minimum.

MASTER SECTION

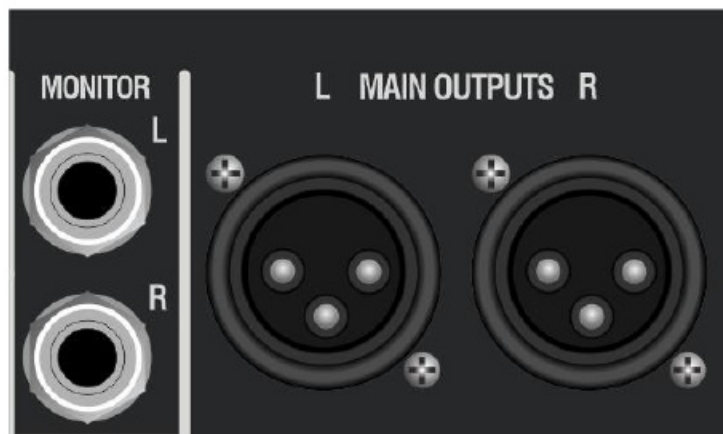
FX/AUX LOOP AND PHONES

- **FX/AUX SEND** – Mono output for the FX/Aux Bus. This output is not processed by the onboard DSP.
- **PHONES OUT** – TRS socket intended for headphones and is a stereo output sourced from the Monitor L/R outputs.
- **FX/AUX RETURN** – Provides a left and a right TRS input socket that supports balanced and unbalanced signals. For mono audio, connect the signal to the Left channel socket which will route signal to both channels.



MONITOR AND MAIN OUTPUTS

- **MONITOR OUT** – A stereo TRS output linked to the phones out.
- **MAIN OUTPUTS** – A stereo XLR output intended for balanced cable connections.



AUX/FX/RCA/USB LEVELS

- **MONITOR/PHONES LEVEL** – Controls the signal level at the monitor and phones outputs.
 - Use the Routing control button to select the source of the monitor/phones output:
 - MAIN bus – button not pressed.
 - USB/RCA bus – button pressed.



RCA IN

RCA IN – Stereo phono input sockets. Can be routed to either the Monitor/Phones outputs and/or the Main bus.



PRIMARY OUTPUT LEVELS

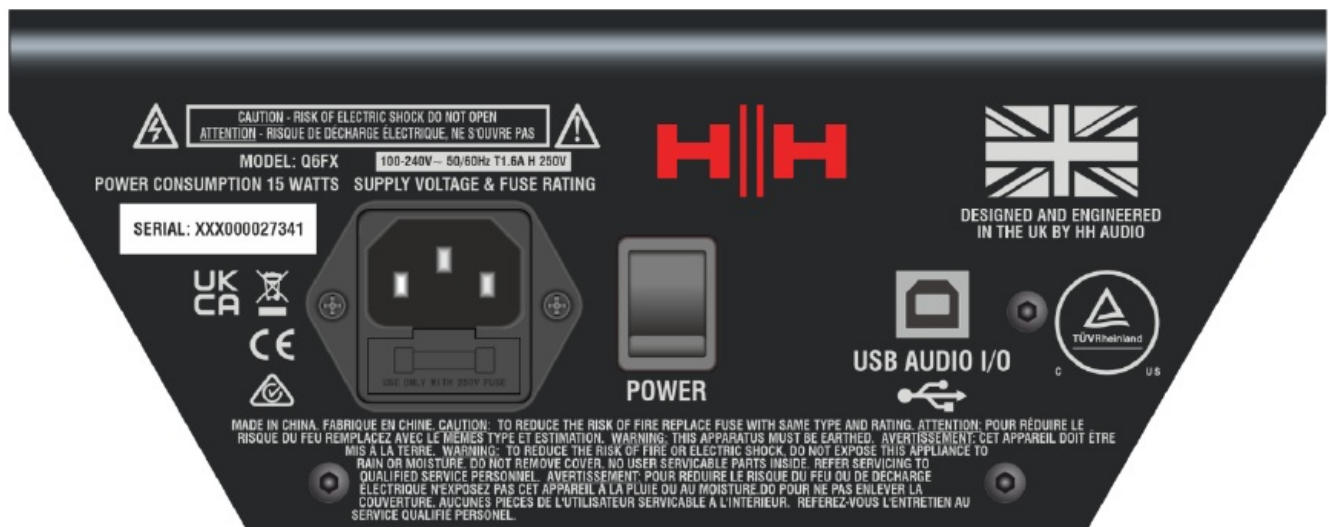
- **MAIN MIX** – Single fader for L and R channels, ranging from $-\infty$ to +10dB. Any signal directed to the MAIN bus will go through this fader control to the main mix XLR outputs.
- **LEVEL METER** – Represented in dB, shows the real time level of the output signal going to the Monitor/Phones outputs. The source of the signal depends on the settings of the MAIN TO MON, USB/RCA TO MON and USB/RCA TO MAIN switches. This To avoid clipping, ensure the level doesn't reach the red peak LED. Also features LED indicators for power supply and the +48V Phantom power.

DSP FXAND RETURN LEVEL

- **FX SELECT** – Choose from one of the 16 effects including delays, reverbs and echoes. Applies to the FX loop signal.
- **FX ENABLE** – Enable/disable the effect selected by the FX knob. Active LED to indicate whether the effect is on or off.
- **FX/AUX RETURN LEVEL** – Control the level for the signal coming into the FX/AUX return sockets.



REAR PANEL



From the rear panel you can find important product safety information as well as the serial number of the mixer.

- **FUSED POWER SOCKET/SWITCH** – Use the switch to power on the mixer once the plug is connected to the mains. Connect the provided IEC mains plug here. The plug must be earthed and provides the safety earth to the unit. The drawer contains the main safety fuse for the unit. The fuse protects the mixer from damage in the event of fault by disconnecting the mains power supply. **USE ONLY THE CORRECT SIZE AND RATING SPECIFIED ON THE PANEL.** If a fuse blows or fails and a replacement of the same size and rating is installed which in turn blows, the mixer has suffered a malfunction and needs immediate service from a qualified HH approved technician. **DO NOT TRY A FUSE OF HIGHER RATING** – Using a higher rated fuse may cause serious, irreparable damage or presents a serious fire hazard.
- **TYPE-B USB SOCKET** – Connect a Type-B use cable here, then plug the other end of the cable directly into

your computer to send and receive audio to and from the mixer. The Q6FX should be automatically recognised on both Windows® and MacOS® devices as a class compliant audio device and no additional drivers are required.

INITIAL SETUP

POWERING ON

INITIAL CHECK

- Upon unboxing your Q6FX, check it over for any damage that may have occurred in transit.
- Plan out which cables are required for your desired setup and ensure all cables are of adequate length to reach their destination.

PLUG IN

- **POWER** – Check the power switch on the rear panel (next to the IEC socket), is in the off position ('1' indicates the on position). Plug in the provided IEC power cable, connecting the other end to a mains socket. The Q series mixers are universal voltage (100-240V~).
- **INPUTS** – With the mixer still powered off, plug in all microphones, instruments and audio tracks to the corresponding input socket.
- **OUTPUTS** – Plug in all the speakers, effects and headphones to the desired output on the mixer.

Turn down all input and output gain controls and faders on the mixer panel. To avoid any turn on pops, turn off all connected powered speakers. Ensure the +48V phantom power switch Below CH1 and CH2 line input sockets on the front panel is in the off position.

Switch on all input devices and then power on the mixer. If any XLR input devices need phantom power (such as condenser microphones), turn this on BEFORE the connected powered output speakers. Finally turn on any connected output speakers

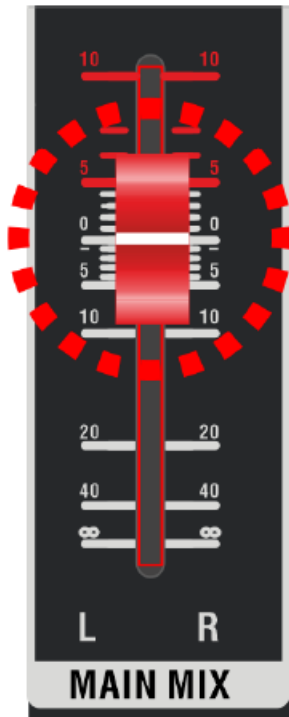
SIGNAL CHECK

The initial signal check will use the monitor/phones output to check each channel individually.

INDIVIDUAL CHANNEL CHECK

- Firstly, with all channel level controls at $-\infty$, turn up the main mix fader to 0dB.
- Individually, check the gain of each channel by turning up the corresponding channel's level knob to 0dB.
- Whilst playing the instrument/talking into the microphone, check for adequate sound level. If it's too low, turn up the channels gain control, alternatively reduce the source signal level or channel gain control if the level is too high. During this, make sure the peak light isn't illuminated.
- When checking the next channel, turn down the level knob of the previous channel to $-\infty$ to mute it again.

NOTE: If using one of the Stereo only channels with no gain knob, perform this step via the output volume on the input device.



MAIN MIX CHECK

- Having checked all individual input channels, turn all channel level controls back to 0 or previous position if different.
- From here, you can set the desired mix level by adjusting the individual channel level controls.
- Check that no peak lights are illuminated. If any peak lights flash periodically, turn down the channel knob slightly to avoid clipping the signal.

TONE

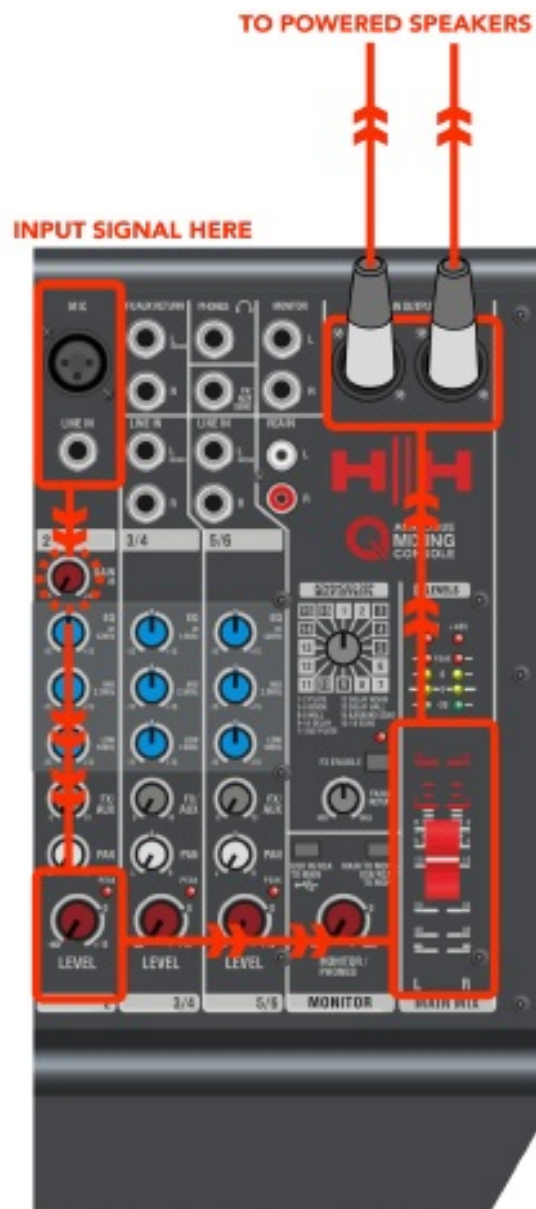
- From here, you are free to experiment with the mix and adjust the tone for each channel.
- Adjust the EQ settings to get the sound you want. Simply repeat the Individual channel check above to hear each channel in isolation.
- The next section will run through the basic steps of getting a channel's input to each output in turn.



SIGNAL FLOW

SIGNAL TO THE MAIN OUTPUTS

- Adjust the gain knob to avoid peak LEDs coming on.
- Adjust the channel Level knob.
- Turn up the stereo Main Mix fader.
- Connect balanced XLR cables to the Main Output sockets.



SIGNAL TO THE FX AND AUX SEND

- Adjust channel gain knob.
- Set the FX/Aux knob to the desired level.



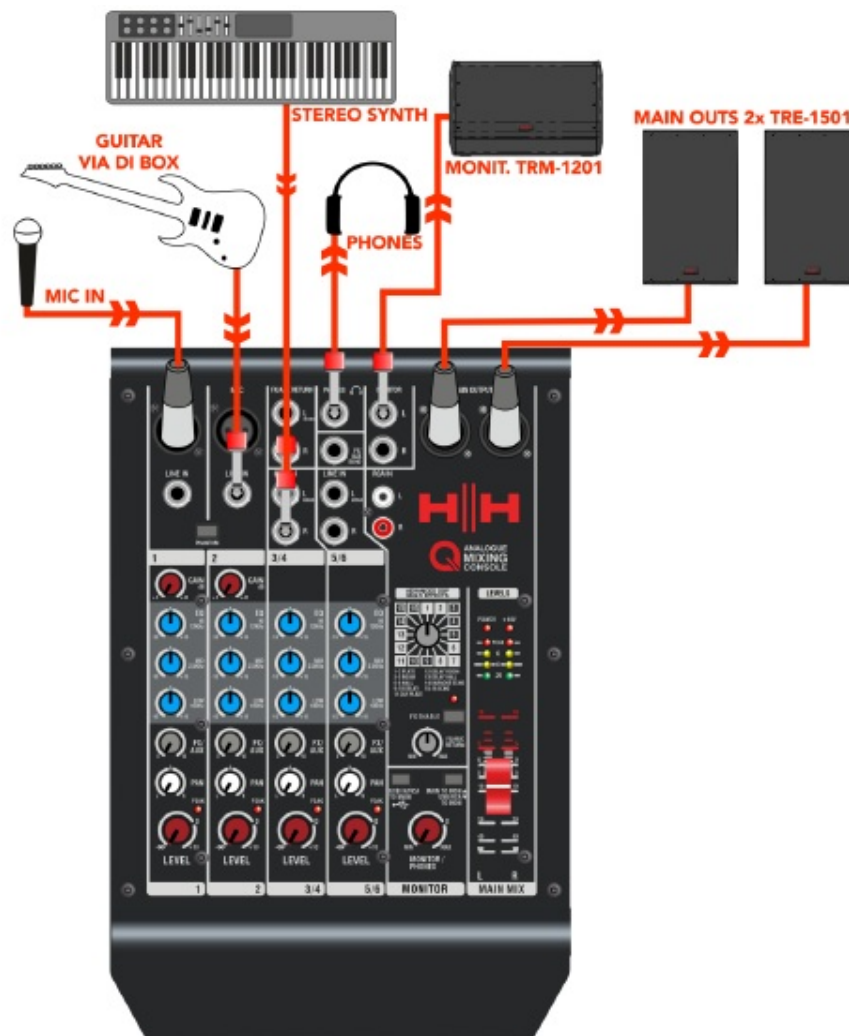
SIGNAL TO THE MONITOR OUTPUTS

- Adjust channel Gain knob.
- Adjust channel Level knob to desired level.
- Adjust the Monitor/Phones Level knob to the desired level. Keep the routing button to “MAIN TO MON” (button released).
- Signal will output from Monitor L+R.
- Can also listen to same output signal from Phones out socket.



CONNECTIONS

EXAMPLE SETUPS



CONNECTING THE USB

Q series mixers feature a type-B USB socket situated on the rear panel for 2 channel in and 2 channel out audio streaming.

Simply plug the mixer directly into your computer/laptop to start transferring audio between the two devices.

STREAMING AUDIO TO THE Q6FX

- To stream audio to the mixer, load up your chosen media player on the connected computer and ensure the levels on there are high enough. Select “HH Q6” as your computer’s audio output.
- Check audio on the media player isn’t muted as well as the overall Volume Mixer for all applications.
- Audio will enter the mixer on the USB/RCA bus. If required, the USB/RCA signal level will have to be adjusted at source.



- The two buttons highlighted in the image on the right can be used to direct the USB/RCA bus to various outputs. Use the lefthand button to route the USB input to the Main bus and the righthand button to route the USB input to the Monitor/Phones outputs.

RECORDING AUDIO FROM THE Q6FX

To begin recording using the Q6FX with your chosen digital audio workstation (DAW), ensure that “HH Q6” is selected as the audio input device within the audio preferences/settings menu of your DAW. No additional drivers are required to use the Q6FX with your DAW.

Once “HH Q6” has been selected as your audio input device, create 2 audio tracks in your DAW. Then select the input source of each track. Select Input 1 on your first audio track to bring the Left channel of your mix through to your DAW. Then select Input 2 on your second audio track to bring the Right channel through. To begin recording ensure that your audio tracks are “record armed” in your DAW and the Main Mix level is set appropriately on your Q6FX. Recording both left and right signals simultaneously will give you a stereo digital recording of the mix you have dialled in on the Q6FX across 2 tracks.

SPECIFICATIONS

SPECIFICATIONS	Q6FX
Inputs	
Mic Inputs	2x XLR CH1-2
Mic EIN	Mono Mic E.I.N. (max gain): <-126dBu (150Ω), Stereo Mic Input E.I.N. (max gain): <-124dBu (150Ω)
Input impedance	1.2kΩ
Maximum input level	+8dBu in @ min gain
Adjustable gain	+5dB to +45dB
CMRR	75dB

SNR	111dB
THD+N%	~0.002%
Crosstalk	-70dB
Phantom power	Global switch, +48V
Line Inputs (Mono)	2x 1/4" 6.3mm TRS CH1-2
Input impedance	10k Ω
Maximum input level	+27dBu in @ min gain
Adjustable gain	-15dB to +30dB
CMRR	60dB
SNR	109dB
THD+N%	~0.002%
Crosstalk	-70dB @ 1kHz
Line Inputs (Stereo)	2x Stereo 1/4" 6.3mm TRS CH3-6
Input impedance	21.5k Ω
Maximum input level	+13dBu
Gain	+6dB
CMRR	80dB
SNR	112dB
THD+N%	~0.007%
Crosstalk	-85dB
General	
EQ	3 band (± 15 dB), Low 100Hz, Mid 2.5kHz, High 12kHz per channel
Pan	per channel L/R, (0 ~ mute)

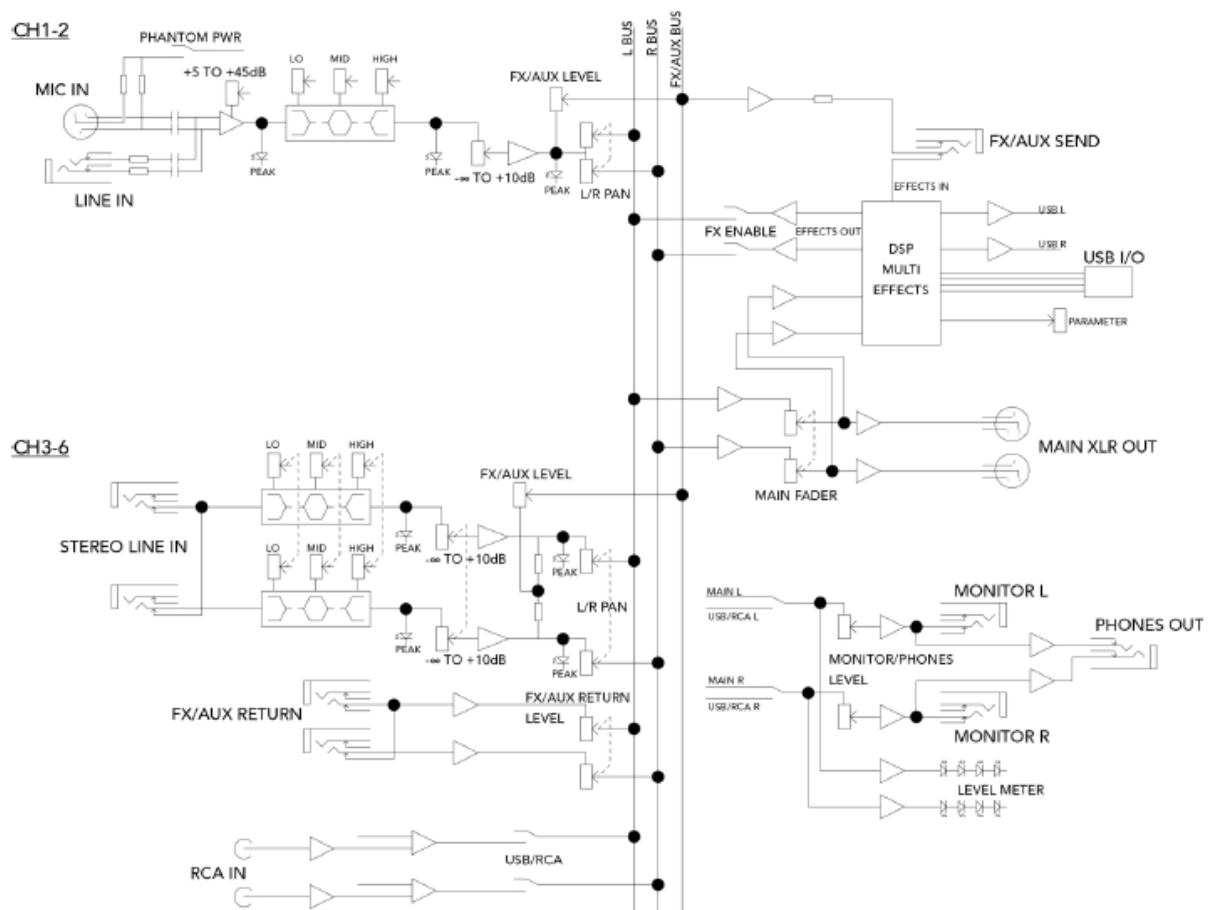
Level controls	Channel level with peak indicator, FX/Aux return (rotary pots)
Additional inputs	USB audio, FX/Aux return, stereo RCA in
Outputs	
Main Outputs	Balanced stereo XLRs
Max output	+24dBu
Output impedance	150 Ω (balanced), 75 Ω (unbalanced)
THD%	~0.001%
Residual noise	12.5uV
Frequency response	± 0.3 dB
Monitors	Stereo 1/4" 6.3mm TRS sockets
Max output	+24dBu
THD%	~0.0012%
Residual noise	9.5uV
Frequency response	± 0.3 dB
FX/Aux Send	Mono 1/4" 6.3mm TRS
Max output	+18dBu
THD%	~0.003%
Residual noise	12uV
Frequency response	± 0.25 dB
Phones	Mono 1/4" 6.3mm TRS
Max output	+24dBu
THD%	~0.004%
Residual noise	235uV

Frequency response	±0.7dB
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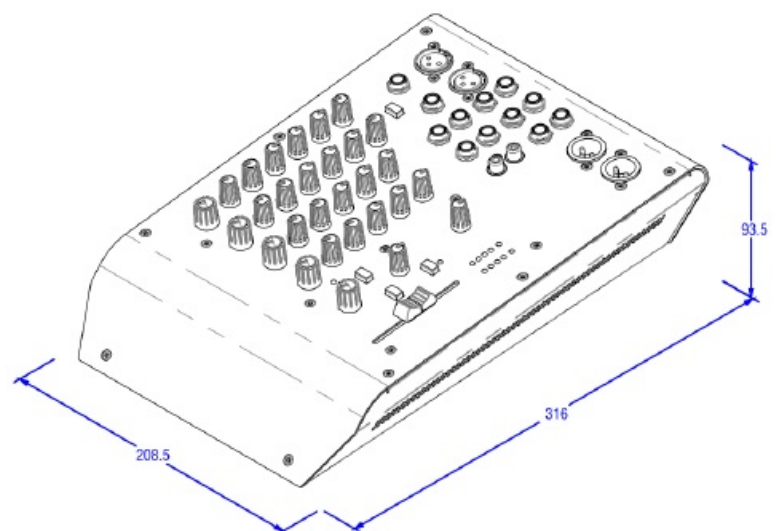
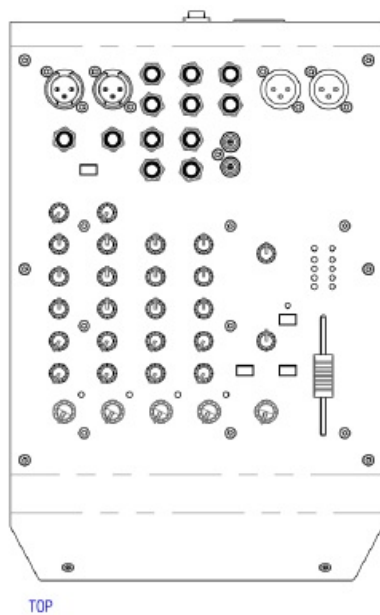
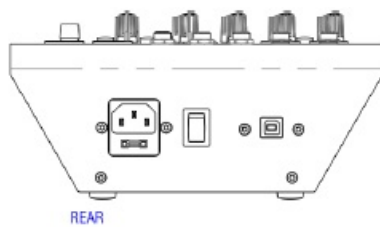
General	
DSP FX	16 reverb and delay effects with enable switch
Level controls	Master fader (-∞ to +10dB), monitor/phones (rotary pot)
USB Audio	Inputs/Outputs: 2-in, 2-out, 16-bit, 24-bit, Sampling rate: 48kHz
AC Power	Universal 100-240V~ 50/60Hz (IEC C14 Socket, AC Cord included)
Power Consumption	15W
Dimensions	
Product Dimensions (HWD)	93.5 x 208.5 x 316mm (3.7" x 8.2" x 12.4")
Product Weight	2.8 Kg (6.2 lbs)
Carton dimensions (HWD)	175 x 285 x 395mm (6.9" x 11.2" x 15.6")
Packed Weight	4 Kg (8.8 lbs)
Master Carton Quantity	4 pcs
Master Carton dimensions (HWD)	380 x 585 x 425mm (15" x 23" x 16.7")
Master Carton Packed Weight	18.2 Kg (40.1 lbs)
Model EAN13	5060109458985
Master EAN	5060109458992

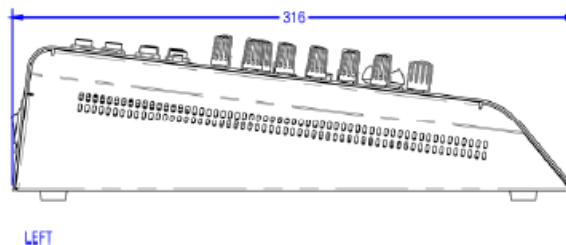
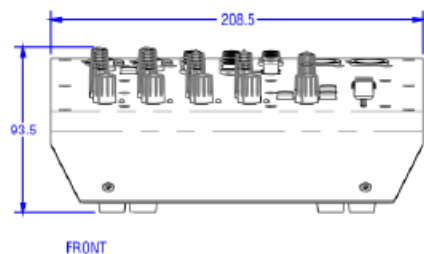
In the interest of continued development, HH reserves the right to amend product specification without prior notification.

BLOCK DIAGRAM



DIMENSIONS (in mm)





SAFETY AND WARNINGS

To take full advantage of your new product and enjoy long and trouble-free performance, please read this owner's manual carefully, and keep it in a safe place for future reference.

1. **Unpacking:** On unpacking your product, please check carefully for any signs of damage that may have occurred whilst in transit from the HH factory to your dealer. In the unlikely event that there has been damage, please re-pack your unit in its original carton and consult your dealer. We strongly advise you to keep your original transit carton, since in the unlikely event that your unit should develop a fault, you will be able to return it to you dealer for rectification securely packed.
2. **Amplifier Connection:** To avoid damage, generally it is advisable to establish and follow a pattern for turning on and off your system. With all system parts connected, turn on source equipment, mixers, effects processors etc, BEFORE turning on your amplifier. Many products have large transient surges at turn on and off which can cause damage to your speakers. By turning on your amplifier LAST and making sure its level control is set to a minimum, any transients from other equipment should not reach your loudspeakers. Wait till all system parts have stabilised, usually a couple of seconds. Similarly, when turning off your system always turn down the level controls on your amplifier and then turn off its power before turning off other equipment.
3. **Cables:** Never use shielded or microphone cable for any speaker connections as this will not be substantial enough to handle the amplifier load and could cause damage to your complete system. Use good quality shielded cables everywhere else.
4. **Servicing:** The user should not attempt to service these products. Refer all servicing to qualified service personnel.
5. Heed all warnings.
6. Follow all instructions.
7. Do not use this apparatus near water.
8. Clean only with a dry cloth.
9. Do not block any of the ventilation openings. Install in accordance with manufacturer's instructions.
10. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
11. An apparatus with Class I construction shall be connected to a mains socket outlet with a protective connection. 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 third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
12. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point they exit from the apparatus.
13. Only use attachments/accessories provided by the manufacturer.




14. 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.
15. The mains plug or appliance coupler is used as the disconnect device and shall remain readily operable. The user should allow easy access to any mains plug, mains coupler and mains switch used in conjunction with this unit thus making it readily operable. Unplug this apparatus during lightning storms or when unused for long periods of time.
16. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when 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.
17. Never break off the ground pin. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
18. If this product is to be mounted in an equipment rack, rear support should be provided.
19. Note for UK only: If the colours of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:
 - The wire that is coloured green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, coloured green or coloured green and yellow.
 - The wire that is coloured blue must be connected to the terminal that is marked with the letter N or the colour black.
 - The wire that is coloured brown must be connected to the terminal that is marked with the letter L or the colour red.



Duration Per Day in Hours	Sound Level dBA, slow response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ ou inférieur	115

20. This electrical apparatus should not be exposed to dripping or splashing and care should be taken not to place objects containing liquids, such as vases, upon the apparatus.
21. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures: According to OSHA, any exposure more than the above permissible limits could result in some hearing loss. Earplugs or protectors to the ear canals or over the ears must be worn when operating this amplification system to prevent a permanent hearing loss, if exposure is more than the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors

while this unit is in operation.

22. If your appliance features a tilting mechanism or a kickback style cabinet, please use this design feature with caution. Due to the ease with which the amplifier can be moved between straight and tilted back positions, only use the amplifier on a level, stable surface. DO NOT operate the amplifier on a desk, table, shelf or otherwise unsuitable non-stable platform.
23. Symbols & nomenclature used on the product and in the product manuals, intended to alert the operator to areas where extra caution may be necessary, are as follows:

 CAUTION:	Intended to alert the user to the presence of uninsulated 'Dangerous Voltage' within the products enclosure that may be sufficient to constitute a risk of electrical shock to persons.
 WARNING:	Intended to alert the user of the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.
CAUTION: Risk of electrical shock – DO NOT OPEN. To reduce the risk of electrical shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified personnel.	
WARNING: To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, please read the operating instructions for further warnings.	
	<p>This device complies with Part 15 of the FCC rules Operation is subject to the following two conditions:</p> <ol style="list-style-type: none">1. This device may not cause harmful interference.2. This device must accept any interference received, that may cause undesired operation. <p>Warning: Changes or modification to the equipment not approved by HH can void the user's authority to use the equipment.</p> <p>Note: This equipment has been tested and found to comply with the limits for 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 and correct the interference by one or more of the following measures.</p> <ul style="list-style-type: none">• 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.

	<p>This product conforms to the requirements of the following European Regulations, Directives & Rules: CE Mark (93/68/EEC), Low Voltage (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU), ErP (2009/125/EU)</p> <p>SIMPLIFIED EU DECLARATION OF CONFORMITY</p> <p>Full text of the EU declaration of conformity is available at the following internet address: http://support.hhelectronics.com/approvals</p>
	<p>The object of the declaration described above is in conformity with the relevant statutory requirement Electrical Equipment (Safety) Regulations 2016, Electromagnetic Compatibility Regulations 2016, The Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, The Ecodesign for Energy-Related Products and Energy Information, (Amendment) (EU Exit) Regulations 2012</p>
	<p>In order to reduce environmental damage, at the end of its useful life, this product must not be disposed of along with normal household waste to landfill sites. It must be taken to an approved recycling centre according to the recommendations of the WEEE (Waste Electrical and Electronic Equipment) directive applicable in your country.</p>

- HH AUDIO
- STEELPARK ROAD, COOMBSWOOD BUSINESS PARK WEST, HALESOWEN, B62 8HD
- HH AUDIO PART OF HEADSTOCK GROUP
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IN THE INTEREST OF CONTINUED DEVELOPMENT, HH RESERVES THE RIGHT TO AMEND PRODUCT SPECIFICATION WITHOUT PRIOR NOTIFICATION.

Frequently Asked Questions

Q: How do I connect the mixer to my computer for audio streaming?

A: To connect the mixer to your computer for audio streaming, simply plug the type-B USB socket located on the rear panel of the Q series mixer into your computer or laptop. This will enable 2 channel in and out audio streaming between the two devices.

Documents / Resources

	<p>HH Audio Q6FX Analogue Mixing Console [pdf] Instruction Manual</p> <p>Q6FX, Q6FX Analogue Mixing Console, Analogue Mixing Console, Mixing Console, Console</p>
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References

- [HH Audio](#)
- [User Manual](#)

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