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TAKSTAR XR-0612FX Analog Mixer

TAKSTAR XR-0612FX Analog Mixer User Guide

Contents

TAKSTAR®

TAKSTAR XR-0612FX Analog Mixer

PREFACE

Dear Customer,

Thank you for purchasing Takstar XR-0612FX/XR-1016FX/XR-1824FX Analog Mixer. To better understand and use the product, please read this manual carefully.

If you have any questions or suggestions, please contact our local dealer.

FEATURES

- Robust metal housing
- Professional DSP effector with 16 effects available
- 6/10/18CH XLR mic inputs, 2/4/4CH bus outputs, 4/6/6CH with built-in compressor; separate stereo pan control on each channel
- Two stereo channels capable of direct routing to L/R
- Bluetooth & USB-A MP3 playback, stereo USB-B audio input & output
- Low-noise preamp + 48V phantom power
- 3-band equalizer on each channel for treble/mid-range/bass adjustment
- Studio quality headphone output
- 60mm high precision faders

APPLICATIONS

- Commercial performances, large gatherings, outdoors

PACKING LIST

SPECIFICATIONS

MONO INPUT

- **MIC IN:** 6/10/18CH Bal XLR
- **Frequency Response:** 20 Hz – 20 KHz, +/-1 dB
- **Distortion (THD+N):** <0.003% at +0 dB, 20 Hz-20 kHz
- **Sensitivity:** 0 dB to -50 dB
- **Max Input Level:** +20 dBu
- **MIC IN Impedance:** 14 kQ, unbal
- **Phantom Power:** +48V
- **Low Cut:** 80 Hz

STEREO INPUT

- **LINE IN:** 4 pairs of Bal TRS + 2 pairs of Unbal RCA
- **Frequency Response:** 20 Hz – 20 kHz, +/-1 dB
- **Distortion (THD+N):** <0.003% at +0 dB, 20 Hz-20 kHz
- **Sensitivity:** 20 dB to -30 dB
- **LINE IN Impedance:** 15 kΩ, unbal

DSP

- **DSP:** 20/27 bit digital signal
- **A/D & D/A Converter:** 24 bit
- **FX Type:** 4 algorithms: reverb, chorus, delay, flanger – 16 presets
- **Foot Switch:** TS jack (for effect return mute and unmute)

OUTPUT

- **MAIN OUTPUT:** 1 pair of XLR + 1 pair of 6.3mm TRS
- **MAIN Max Output Level:** +28 dBu
- **AUX OUTPUT:** 4 TRS
- **AUX Max Output Level:** +28 dBu
- **STEREO GROUP 1/2 OUTPUT:** 2 TRS
- **GROUP Max Output Level:** +28 dBu

- **STEREO GROUP 3/4 OUTPUT:** 2 TRS
- **GROUP Max Output Level:** +28 dBu
- **Monitor Output:** 1 pair of TRS
- **Stereo Headphone Output:** 1 Stereo TRS
- **XR-0612FX Dimensions:** 369*383*94 mm; Weight: 4.8 kg
- **XR-1016FX Dimensions:** 468*440*95 mm; Weight: 6.6 kg
- **XR-1824FX Dimensions:** 680*450*95 mm; Weight: 9.3 kg
- **LINE IN:** 4/8/16CH Bal TRS
- **Frequency Response:** 20 Hz – 20 kHz, +/-1 dB
- **Distortion (THD+N):** <0.003% at +0 dB, 20 Hz- 20 kHz
- **Sensitivity:** 20 dB to -30 dB
- **Max Input Level:** +40 dBu
- **LINE IN Impedance:** 21 kΩ, unbal

MONO EQ

- **HIGH:** +/-15 dB @ 10 kHz Shelving
- **MID:** +/-15 dB @ Freq. sel. from 100Hz to 8kHz-Bell
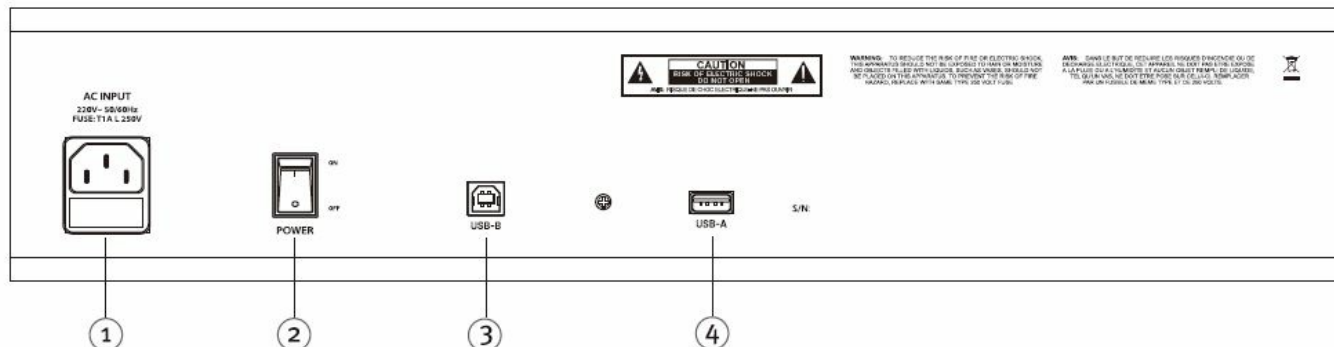- **LOW:** +/-15 dB @ 100 Hz Shelving

STEREO EQ

- **HIGH:** +/-15 dB @ 10 kHz Shelving
- **MID:** +/-15 dB @ 1,250 kHz Bell
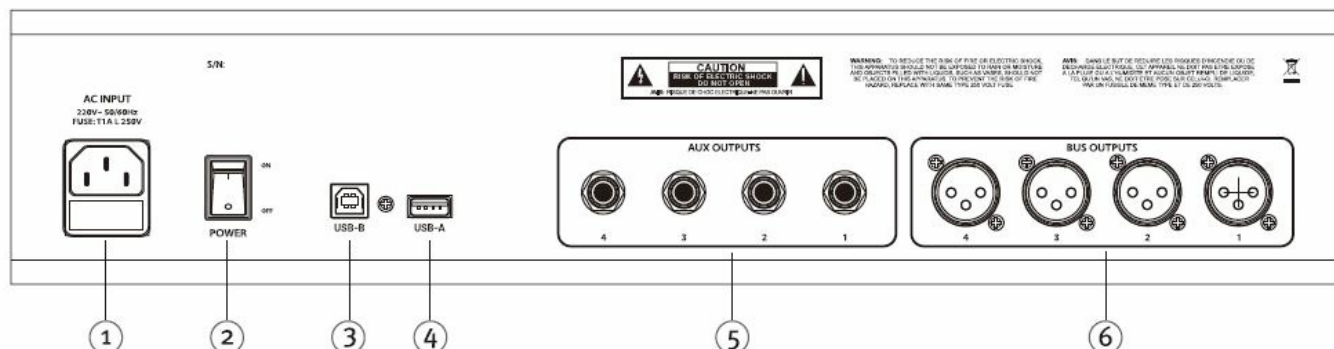- **LOW:** +/-15 dB @ 100 Hz Shelving

POWER SUPPLY

- **Main Input Voltage:** 100 V – 240 V AC, 50-60 Hz
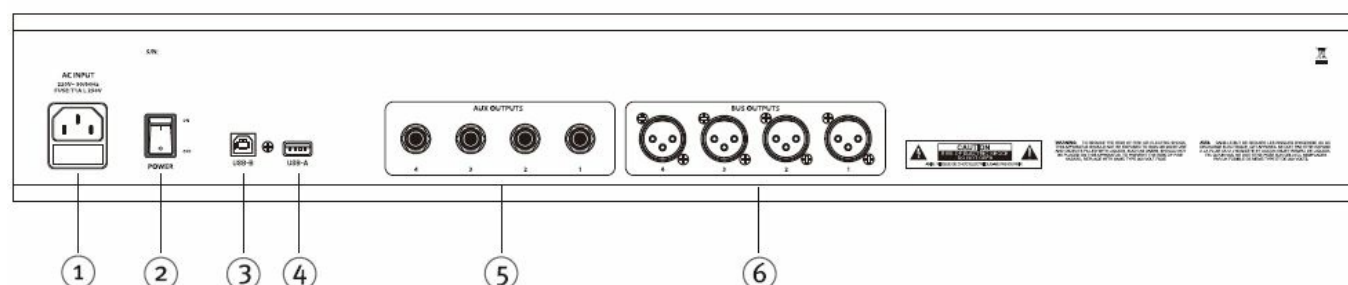- **Power Consumption:** 30W

DESCRIPTIONS

XR-0612FX REAR PANEL

XR-1016FX REAR PANEL

XR-1824FX REAR PANEL

1. **AC INPUT**

   Connect the power cord to this socket and properly connect it to a 220V grounded AC power source.

2. **POWER SWITCH**

   Turns the mixer power on or off.

3. **USB-B CONNECTOR**

   Connect a computer to this port via a UBS cable for stereo recording and playback of audio signals.

4. **USB-A STORAGE CONNECTOR**

   Connect a USB flash drive for music playback and recording.

5. **AUX OUTPUTS 1 – 4**

   These AUX outputs feature 1/4" TRS balanced jacks and provide a signal from auxiliary outputs. The output level is controlled by the AUX Level control (10).

6. **BUS OUTPUTS 1 – 4**

   These BUS outputs feature 1/4" TRS balanced jacks and provide signal from group outputs. The output level is controlled by the BUS Level fader.

MONO INPUT

1. **MIC IN**

   This XLR-balanced mic preamp input supports sources with a gain range of 0 dB to -50 dB. All MIC/LINE inputs feature an 80 Hz high pass filter, which can be enabled to reduce low-frequency pops, bumping and rattling noise when using a mic for vocals.

2. **LINE IN (1/4)**

   These jacks are 1/4″ balanced (TRS) high-impedance inputs. The cores are positive and used for unbalanced inputs. MIC-IN and LINE-IN should not be used at the same time.

3. **GAIN**

   May refer to MIC GAIN or LINE GAIN subject to the input source. Using MIC IN, Gain Range: 0~50dB; Using LINE IN, Gain Range: -20~+30 dB. Preferably set to a level where PEAK LED only flashes occasionally, so to prevent distortion.

4. **LOW CUT**

   An 80Hz low-cut filter toggle. Enable it to cut off unwanted low-frequency noise (e.g., operating noise, stage noise, air noise) to improve clarity. This unwanted energy could drain power from your audio system.

5. **COMP**

   Turning this knob clockwise lowers the compressor threshold, increasing the amount of compression. The compression ratio is within 4:1 and varies with the signal level and the amount of compression. This is useful for controlling peak levels from live sources and is designed to subtly tame the level of live vocals without noticeable artifacts.

6. **HIGH EQ**

   This smooth-tilt tone control adjusts treble frequency levels (±15dB at 10 kHz), reducing noise or boosting brightness.

7. **MID EQ**

   The IF control is set to 1250 Hz, with a gain of +/-15 dB and a bell curve.

8. **MID FREQ**

   This control knob determines the centre frequency of the MID EQ control. The centre frequency of the bandpass filter can be set between 100 Hz and 8kHz.

9. **LOW EQ**

   This smooth-tilt tone control adjusts the bass frequency level (±15 dB at 100 Hz), adding depth to thin sounds or clarity to overly thick sounds.

10. **AUX1-4**

    Each channel of the XR-1016FX mixer provides 4 aux sends; AUX1 and AUX2 are PRE fader sends. AUX3 is a POST or PRE fader send, depending on the position of the AUX3 PRE/POST button (32). FX/AUX4 send is always post-fader. FX/AUX4 is sent to the internal PRO DSP FX board. Signals in FX/AUX4 send are also routed to the AUX4 OUTPUT jack on the rear panel.

11. **PAN**

    This control determines the signal position of the assigned L/R channel and group 1/2 bus. Turning the knob counterclockwise increases the amount of signal sent to the left channel and odd group; while turning it clockwise increases the amount of signal sent to the right channel and even group.
    For example, when the GROUP SWITCH (17) is in the 1/2 position, turning the knob counter-clockwise will increase the amount of signal sent to Group 1, and turning it clockwise will increase the amount sent to Group 2. An equal amount is sent to each group if rotated to the middle
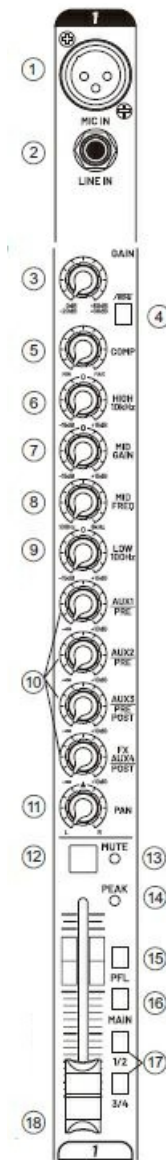
12. **MUTE SWITCH**

Pressing this switch will mute the signal sent to the main mix, aux sends, and FX effects.

The mute switch does not affect the signal sent to the solo system.

13. **MUTE LED**

The mute button is equipped with a red LED that lights up when the channel is muted.

14. **PEAK LED**

This LED usually indicates that the channel signal level is approaching clipping (distortion), but it also lights up when muted. Because the peak indicator circuit monitors the signal after gain, EQ and master level, peaks can be caused by high settings of any of these controls. It lights up upon a static signal (test sound) of +15 dBu, which corresponds to the audible peak of a highly dynamic signal (i.e. a piano). When lit, there is about 5dB of headroom remaining, and the gain and EQ boost should be reduced. Under optimal settings of input gain and EQ, the LED will only flash briefly at the loudest peak.

15. **PFL SWITCH**

This PFL button allows monitoring of the signal on this channel through a speaker connected to the CTRL ROOM OUTPUT or a headphone connected to the PHONES OUTPUT.

16. **MAIN SWITCH**

This button allows signals to be routed individually to the MAIN MIX.

17. **GROUP 1-4 SWITCH**

The BUS1/2 and BUS3/4 buttons allow the signal to be routed to the stereo BUS 1/2, and 3/4 respectively.
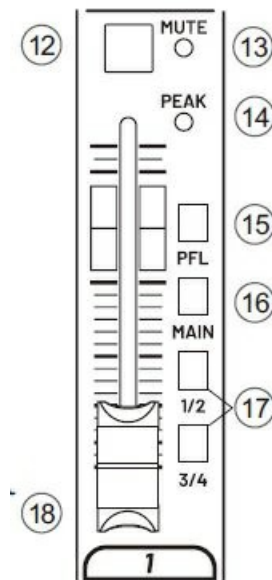
18. **CHANNEL FADER**

    Used to adjust the signal level of the channel sent to the main output; the control range is -∞ to +10dB, and the optimal position is 0 dB.

19. **LINE/Hi-Z SWITCH**

    To connect a guitar directly to the mixer without using a DI Box, press this switch down first; then connect the guitar's output to the channel's 1/4″ TRS input. This helps to match the directly connected input impedance and preserve high-frequency fidelity. The channel's 1/4″ TRS input will become a line input, just like any other mono line input. To use guitars or other instruments on other channels, you'll need to use an external Di box first. Without the DI box or if this switch is not pressed the guitar may sound dull and muddy.
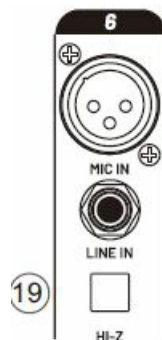
    STEREO INPUT

20. **STEREO INPUTS (RCA)**

    RCA L/R line input which accepts signal from MP3 or CD player.
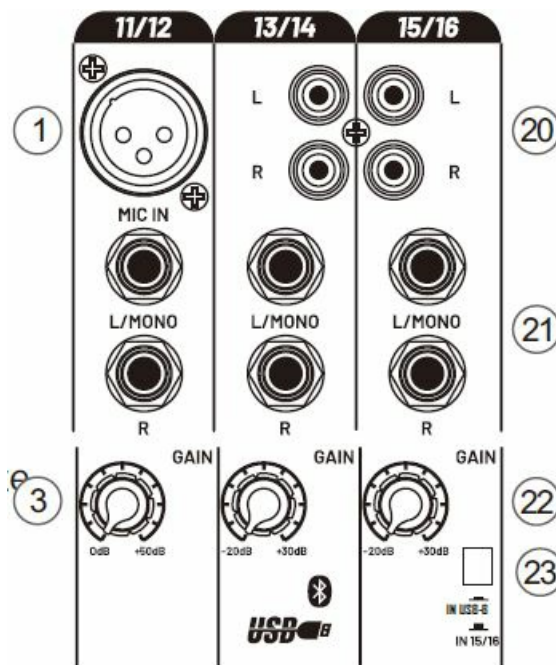
21. **STEREO INPUTS**

   1/4" TRS balanced or 1/4" TS unbalanced line inputs. If you are connecting a mono source, use the left (mono) input and the mono signal will appear on both sides of the main mix.

22. **STEREO GAIN**

   This control establishes the nominal operating level of the channel. The input gain can be adjusted in a wide range (-20—+30dB). To maximize the signal-to-noise ratio, the gain should be set to an appropriate level. To do so, set the channel fader to 0, then press the PFL switch and observe the LEVEL LED. If the CLIP LED glows and stays red, you need to reduce the gain.

23. **LINE IN / USB-B IN SWITCH**

   When this switch is not pressed, the input signal of this channel is provided by line input; or when pressed, provided by USB-B.

   PANEL

24. **FOOTSWITCH**
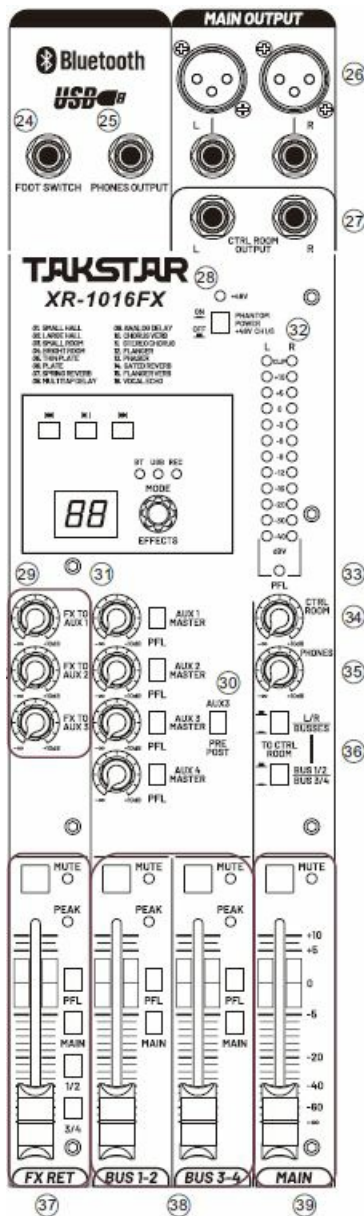
This 1/4″ TRS connector is where the foot switch is connected. The internal effect can be turned on and off through the foot switch. If the internal effect channel has been muted, the foot switch will not work.

25. **PHONES OUTPUT**

This 1/4″ TRS connector provides stereo headphone output. The output volume of this channel is controlled by the PHONES volume control knob.

26. **L/R MAIN OUTPUT**

There are two 1/4" TRS balanced jacks and two balanced XLR outputs for Left/Right outputs. 1/4″ output can be connected with a Tip, Ring, Sleeve (TRS) balanced or Tip, Sleeve (TS) unbalanced connector. Its output level is controlled by MAIN FADER (39). Both XLR and TRS outputs can be used at the same time.

27. **CTRL ROOM OUTPUT**

These 1/4″ jacks are usually connected to the input amplifier or headphone amplifier in the control room.

28. **PHANTOM POWER (two on XR-1824FX)**

This switch applies +48VDC to the XLR input connector to power mics that require phantom power. If enabled, do not connect unbalanced dynamic mics or other XLR input devices that cannot handle this voltage.

29. **FX TO AUX 1-3**

This allows routing of signal in the FX return channel to AUX1-3 send.

30. **AUX3 PRE/POST**

This button sets whether the AUX3/FX signal is pre-fader or post-fader.

31. **AUX 1-4 MASTER**

These potentiometers control the AUX1-4 master level. When the PFL button is pressed, the signal present on the respective individual aux output can be monitored through the speaker connected to the CTRL ROOM OUTPUT (27) or the headphones connected to the PHONES OUTPUT (25).

32. **LEVEL LED**

This 12-LED level meter helps to control the main mix output level. Keep the output level below the "CLIP" LED to avoid signal overload and distortion.

33. **PFL ACTIVE LED**

This LED illuminates when one or more of the PFL buttons are pressed.

34. **CTRL ROOM VOLUME**

This is the level of control of the signal routed to the CTRL ROOM OUTPUT. During regular use, the main channel mix signal is routed to this output; when one or more PFL buttons are pressed, the PFL bus signal is routed to CTRL ROOM OUTPUT and PHONES OUTPUT.

35. **PHONES VOLUME**

This knob controls the level of the headphone output. Set the headphone volume level to the minimum (-∞) before connecting and wearing headphones to avoid hearing damage.

36. **MONITOR SETTINGS**

There are two buttons for monitoring settings. For the upper button: when not pressed, it monitors the audio from MAIN L/R; when pressed, it monitors audio from BUSSES. For the lower button: when not pressed, it monitors audio from BUS 1/2; when pressed, it monitors audio from BUS 3/4.
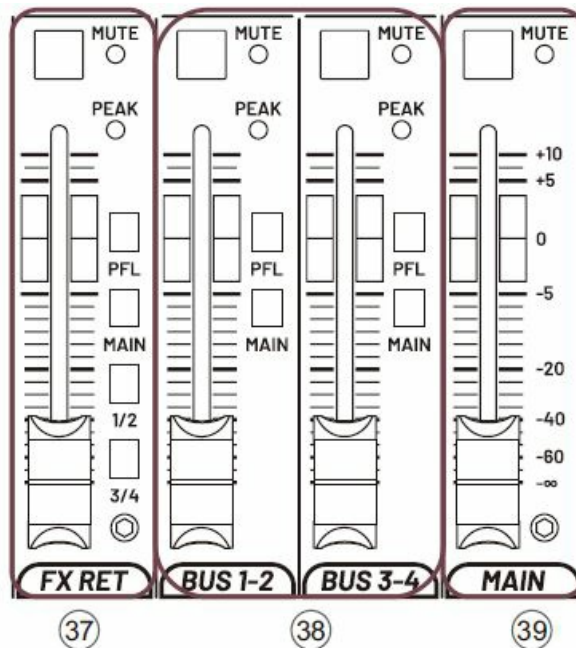
37. **FX FADER**

This fader controls the signal level from the internal DSP effector. The mute button, when pressed, disables signal flow to the output bus or main mix. The PFL button allows the current channel's signal to be monitored by CTRL ROOM OUTPUT and PHONES OUTPUT. The MAIN button allows the effect signal to be sent to the main channel for mixing. The 1/2, and 3/4 buttons allow the effect signal to be sent to the stereo busses BUS 1/2 or BUS 3/4.

38. **BUS 1/2, BUS 3/4 FADER**

Faders BUS1/2 and BUS3/4 control the level of the stereo bus outputs. BUS 1/2 and BUS 3/4 can be fed by

each input channel to create stereo audio groups routed to the physical BUS OUTPUTS. When the MUTE button is pressed, signal flow to the BUS output or main mix is disabled. The MAIN button next to the BUS fader routes the BUS to the MAIN MIX. When the PFL button is pressed, the signal present in the BUS can be monitored through a speaker connected to CTRL ROOM OUTPUT or headphones connected to PHONES OUTPUT.

39. **MAIN FADER**

    This fader controls the level of the MAIN MIX.

40. PREVIOUS TRACK

41. PAUSE/PLAY

42. NEXT TRACK

43. BLUETOOTH (BT) MODE LED

44. USB-A PLAYBACK MODELLED

45. USB REC MODELLED

46. EFFECTS SELECTION (1-16) KNOB & MODE SELECTION BUTTON

47. EFFECT STATUS (1-16) DISPLAY
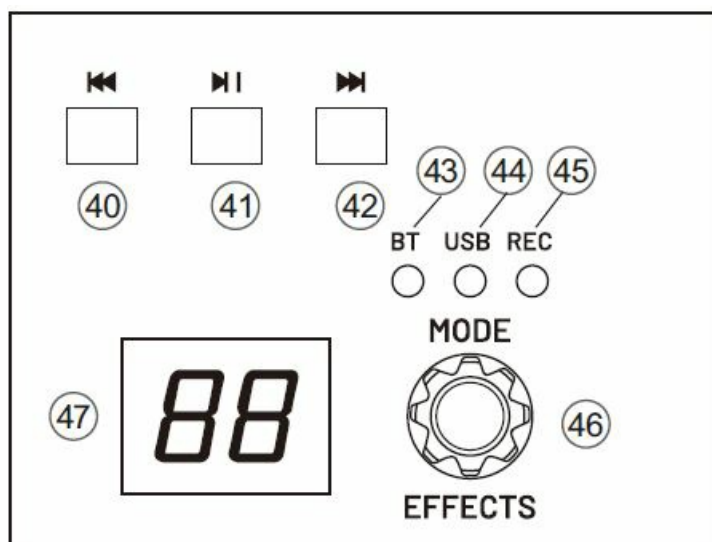
OPERATIONS

- BT MODE (see picture on the right) After powering on, the BT indicator will flash for 2 minutes, awaiting Bluetooth connection. Search for "Mixer BT" on your Bluetooth device and connect. Once paired successfully, the BT indicator will stay lit. You can then manually play media inside your device using PAUSE/PLAY/PREVIOUS TRACK/NEXT TRACK. If without Bluetooth connection within 2 minutes, the Bluetooth function automatically shuts down and the BT indicator turns off. To re-try the Bluetooth connection, press and hold the MODE button for 3 seconds to activate Bluetooth pairing and establish the connection.
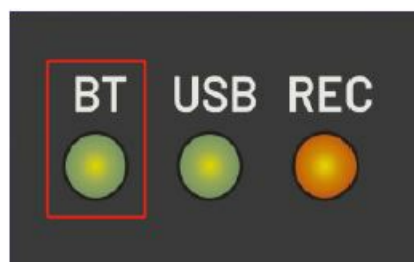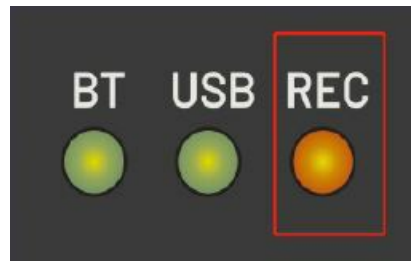

- USB MODE (see picture on the right) When a USB drive is inserted via USB-A port, press the MODE button to switch to USB playback mode. In this case, the USB indicator will light up, and you can play media inside your

USB drive using PAUSE/PLAY/PREVIOUS TRACK/NEXT TRACK.
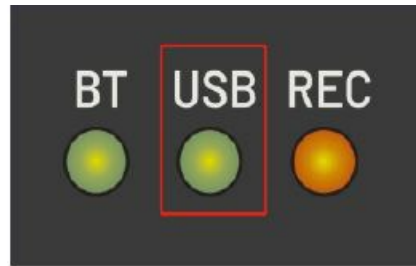
Note: You cannot switch to USB playback mode by pressing the MODE button if no USB drive is inserted via USB-A.

- REC MODE (see picture on the right) While a USB drive is inserted via USB-A and mixer under USB playback mode (i.e., green USB indicator glows), press and hold the MODE button for 3 seconds to enter REC mode. In this case, the REC indicator flashes red while recording normally. Press and hold the MODE button for 3 seconds again to pause recording (REC indicator glows solid red). Again, press and hold the MODE button for 3 seconds to exit REC mode and start playback of the recorded file.

- REC PLAYBACK MODE (see picture on the right) While playing the recording file, the USB green light and the REC red light will be on at the same time, and you can control the playback using PAUSE/PLAY/PREVIOUS TRACK/NEXT TRACK. audio file. Press and hold the MODE button again for 3 seconds to continue recording. During the recording process, press and hold the MODE button for 3 seconds to pause the recording. While paused, press the MODE button once to return to Bluetooth mode, and start a new operation or selection.
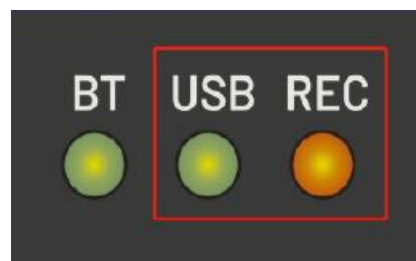
DSP Effector

Both XR-1016FX and XR-1824FX are equipped with an internal PRO DSP FX board with 16 FX presets. Rotate the EFFECTS KNOB to select among the 16 sound effects:
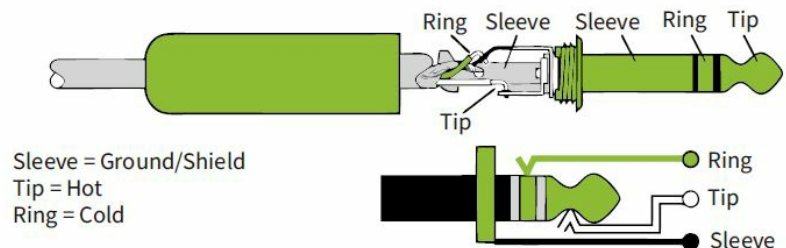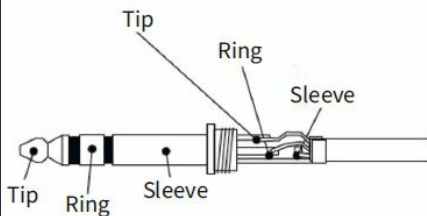
1. SMALL HALL
2. LARGE HALL
3. SMALL ROOM
4. BRIGHT ROOM
5. THIN PLATE

6. PLATE

7. SPRING REVERB

8. MULTITAP DELAY

9. ANALOG DELAY

10. CHORUS VERB

11. STEREO CHORUS

12. FLANGER

13. PHASER

14. GATED REVERB
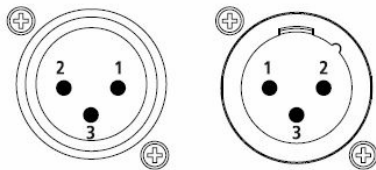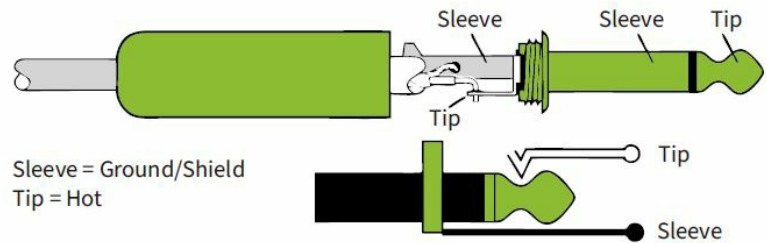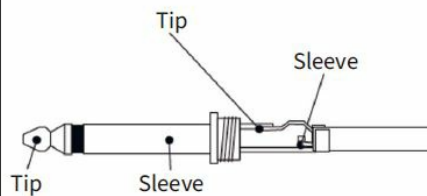
15. FLANGER REVERB

16. VOCAL ECHO

Enrich your audio with any of the above-preset effects.

PLUG PINOUT DIAGRAM

1/4" Balanced TRS Mono Wiring

Tip
Ring
Sleeve
Tip
Ring
Sleeve

Ring Sleeve Sleeve Ring Tip
Tip

Sleeve = Ground/Shield
Tip = Hot
Ring = Cold

Ring
Tip
Sleeve

1/4" Unbalanced TS Mono Wiring

Tip
Sleeve
Tip
Sleeve

Sleeve Sleeve Tip
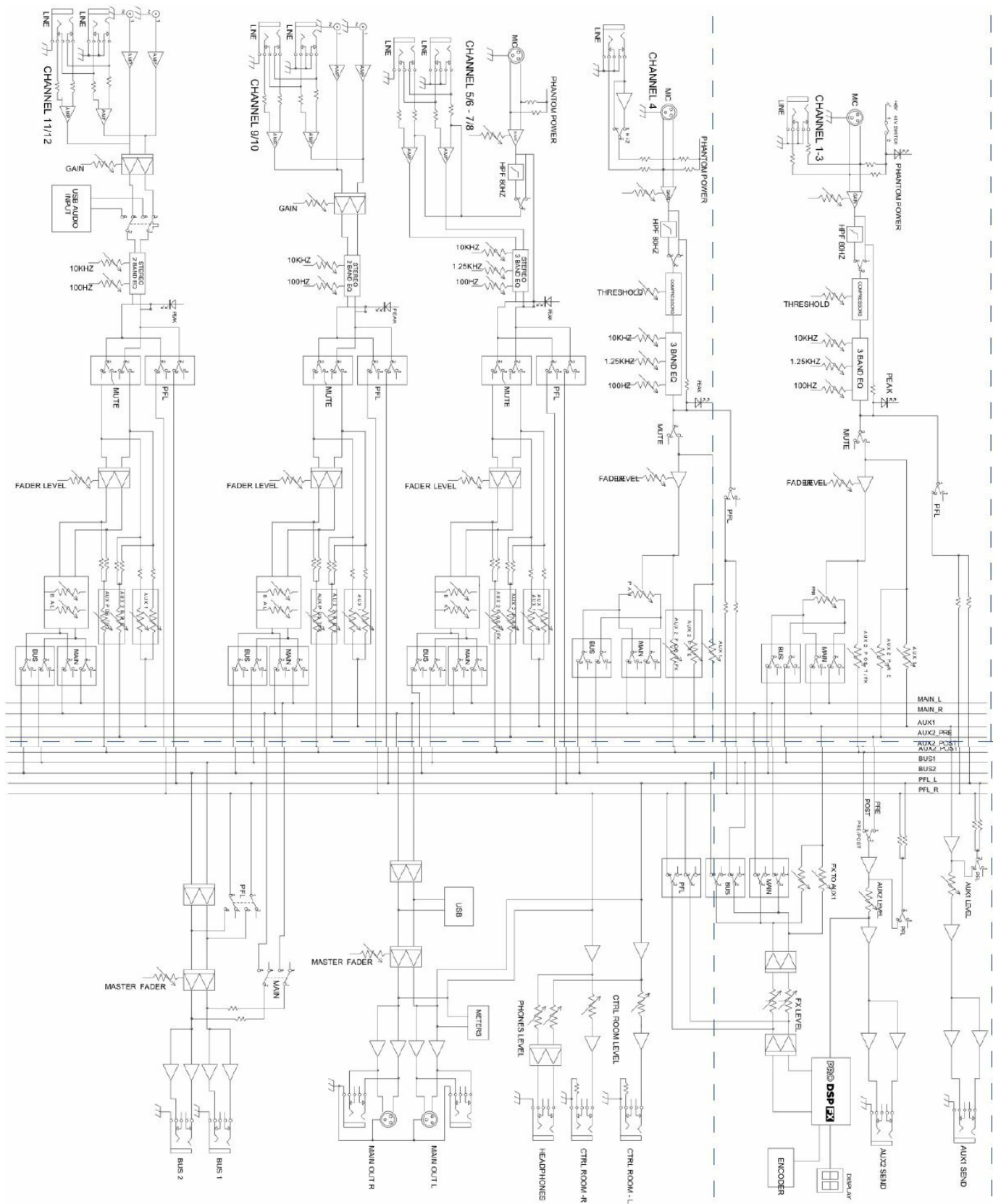Tip

Sleeve = Ground/Shield
Tip = Hot

Tip
Sleeve

2 1
3
XLR Connector (Female)

1 2
3
XLR Connector (Male)

XLR Connector

Bal XLR Wiring:
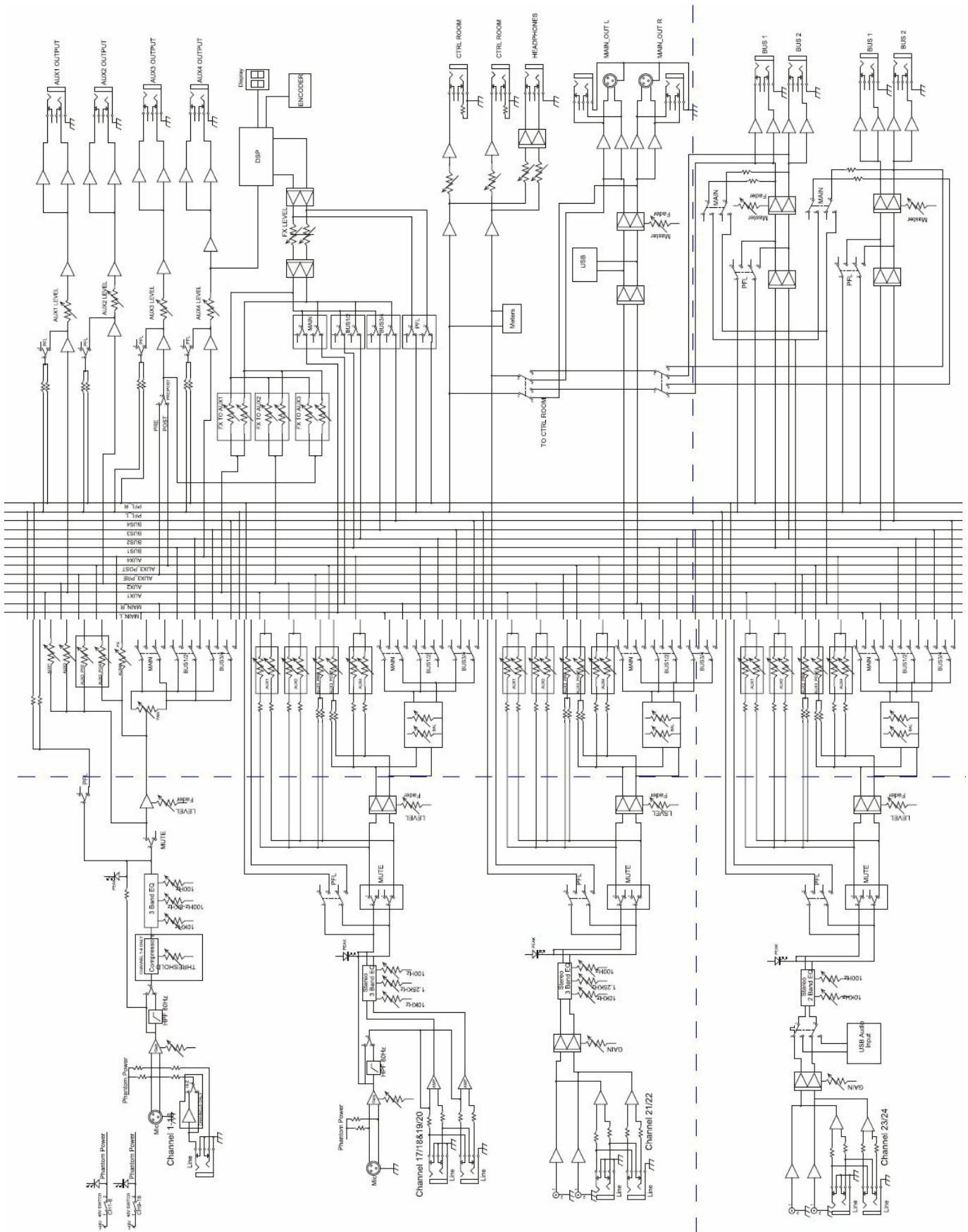1 = Shield (Ground)
2 = Positive (+/Hot)
3 = Negative (-/Cold)

Shield 1
Cold 3 2
Hot

Shield
Cold
Hot
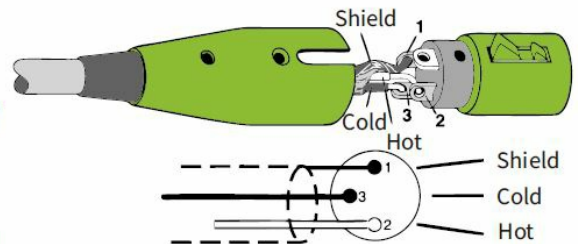
XR-0612FX BLOCK DIAGRAM

XR-1016FX BLOCK DIAGRAM
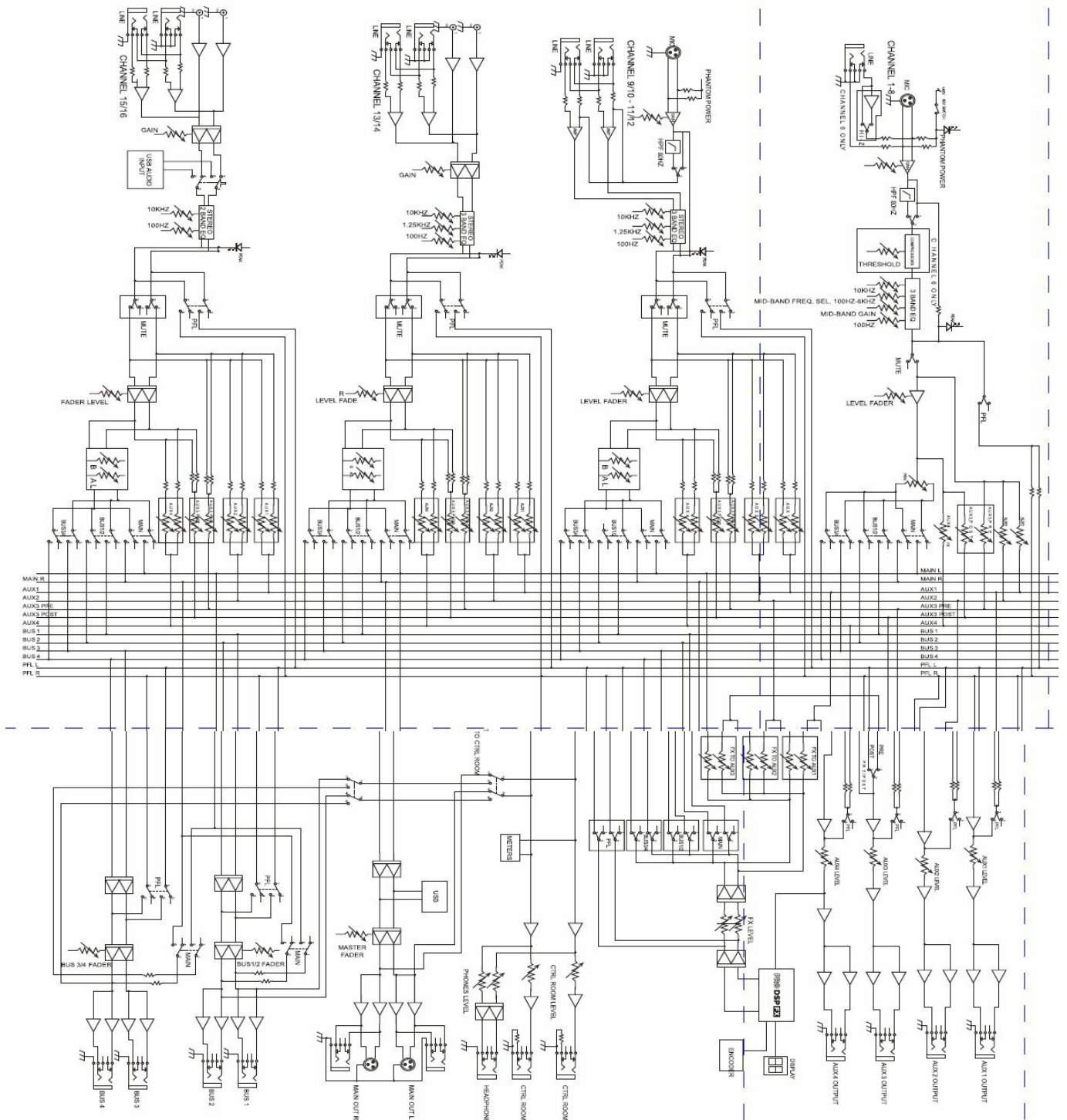
XR-1824FX BLOCK DIAGRAM

CAUTIONS

To avoid electric shock, overheating, fire, radiation, explosion, mechanical risk and injury or property loss due to improper use, please read and observe the following items before use:

1. Please check if the power of the connected equipment matches with that of this product before operation.

Adjust the volume to the proper level during operation. Do not operate at over-power or high-volume levels for an extended time to avoid product malfunction or hearing impairment.

2. If there is any abnormality during use (e.g., smoke, strange odour), please kill the power switch and unplug from a power source, then send the product to the dealer for repair.

3. Keep this product and its accessories in a dry and ventilated area. Do not store in a humid or dusty area for an extended time. Keep away from fire, rain, liquid intrusion, bumping, throwing, vibrating, or blocking any ventilation openings, to prevent malfunction.

4. The product must, when installed on walls or ceilings, be fixed firmly in place at adequate strength to prevent it from falling.

5. Please abide by safety rules during operation. Do not use the product in places prohibited by laws or regulations to avoid accidents.

6. Do not disassemble or repair the product by yourself to avoid injury. If you have any questions or require any services, please contact our local dealer.

CONTACT

- Guangdong Takstar Electronic Co., Ltd.
- Address: No. 2 Fu Kang YiRd., Longxi Boluo
- Huizhou, Guangdong 516121 China
- Tel: 86 752 6383644 Fax: 86 752 6383952
- Email: **sales@takstar.com**
- Website: **www.takstar.com**

Documents / Resources

	TAKSTAR XR-0612FX Analog Mixer [pdf] User Guide XR-0612FX, XR-1016FX, XR-1824FX, XR-0612FX Analog Mixer, Analog Mixer, Mixer

References

- **User Manual**