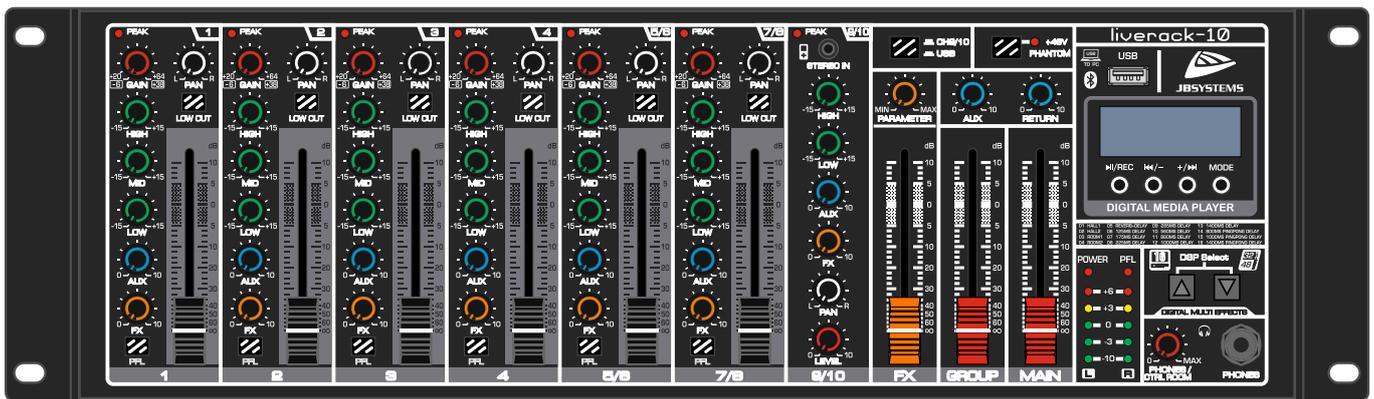# Liverack-10

ENGLISH

Operation Manual
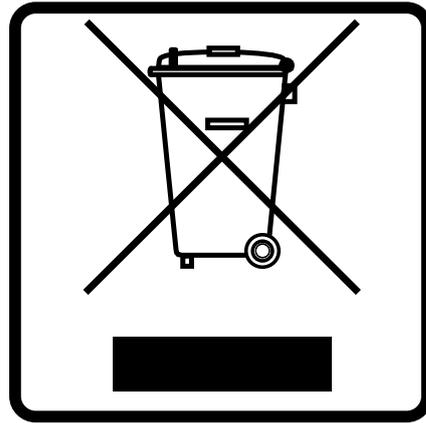
Other languages can be downloaded from:
WWW.JB-SYSTEMS.EU

CE

Version: 1.0
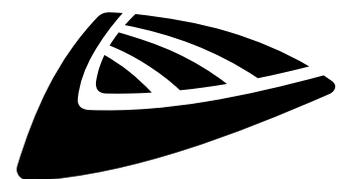
JBSYSTEMS

EN - DISPOSAL OF THE DEVICE

Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL

Débarrassez-vous de l'appareil et des piles usagées de manière écologique Conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT

Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS

Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO

Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su pais.

PT - COMO DESFAZER-SE DA UNIDADE

Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this JB Systems® product. To take full advantage of all possibilities, please read these operating instructions very carefully.

FEATURES

- Multi-purpose PA mixer in a handy 19" Rack format
- 10 inputs on 7 channels (4 mic/line, 2 mic/stereo line, 1 player/stereo in/usb)
- The USB connector is Bidirectional (for mono recording or stereo playback via PC/Mac).
- Internal WMA, WAV, FLAC, APE and MP3 media player for USB memory sticks
- The media player can also be used as a mono mp3 recorder (128kbps)
- Integrated Bluetooth receiver
- Internal 32bit DSP-effect unit with 16 effects + separate parameter control
- Input control on all the channels:
  - Gain (not on input 9-10/media player)
  - Pan
  - Low Cut switch (not on input 9-10/media player)
  - Treble, mid, bass (Treble, bass on input 9-10/media player)
  - Aux send (Post Fader)
  - Effect send
  - Channel level
  - PFL button (not on input 9-10/media player)
- General 48V Phantom Power switch
- 1 Master + 1 Group output with individual level control.
- Aux Send output + Return input with individual level control
- Headphones + control room outputs with level control

BEFORE USE

- Before you start using this unit, please check if there's no transportation damage. Should there be any, do not use the device and consult your dealer first.
- **Important:** This device left our factory in perfect condition and well packaged. It is absolutely necessary for the user to strictly follow the safety instructions and warnings in this user manual. Any damage caused by mishandling is not subject to warranty. The dealer will not accept responsibility for any resulting defects or problems caused by disregarding this user manual.
- Keep this booklet in a safe place for future consultation. If you sell the fixture, be sure to add this user manual.
- To protect the environment, please try to recycle the packing material as much as possible.

Check the contents:
Check that the carton contains the following items:
- Mixer
- Power cable
- Operating instructions

SAFETY INSTRUCTIONS:

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: To reduce the risk of electric shock, do not remove the top cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.

The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the use or the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.

This symbol means: indoor use only

This symbol means: Read instructions

This symbol means: Safety Class I appliance

This appliance must be earthed in order to comply with safety regulations.

- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don't place metal objects or spill liquid inside the unit. No objects filled with liquids, such as vases, shall be placed on this appliance. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- No naked flame sources, such as lighted candles, should be placed on the appliance.
- Don't cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum safe ambient temperature is 40°C. Don't use this unit at higher ambient temperatures.
- Minimum distances around the apparatus for sufficient ventilation is 5cm.
- Always unplug the unit when it is not used for a longer time or before you start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the rear panel of the unit.
- The socket inlet shall remain operable for disconnection from the mains.
- The power cord should always be in perfect condition. Switch the unit immediately off when the power cord is squashed or damaged. It must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Never let the power-cord come into contact with other cables!
- When the power switch is in OFF position, this unit is not completely disconnected from the mains!
- In order to prevent electric shock, do not open the cover. Apart from the mains fuse there are no user serviceable parts inside.
- **Never** repair a fuse or bypass the fuse holder. **Always** replace a damaged fuse with a fuse of the same type and electrical specifications !
- In the event of serious operating problems, stop using the appliance and contact your dealer immediately.
- Please use the original packing when the device is to be transported.
- Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

<u>**INSTALLATION GUIDELINES:**</u>
- Install the unit in a well-ventilated location where it will not be exposed to high temperatures or humidity.
- Placing and using the unit for long periods near heat-generating sources such as amplifiers, spotlights, etc. will affect its performance and may even damage the unit.
- The unit can be mounted in 19-inch racks. Attach the unit using the 4 screw holes on the front panel. Be sure to use screws of the appropriate size. (screws not provided) Take care to minimize shocks and vibrations during transport.
- When installed in a booth or flight case, please make sure to have good ventilation to improve heat evacuation of the unit.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance.
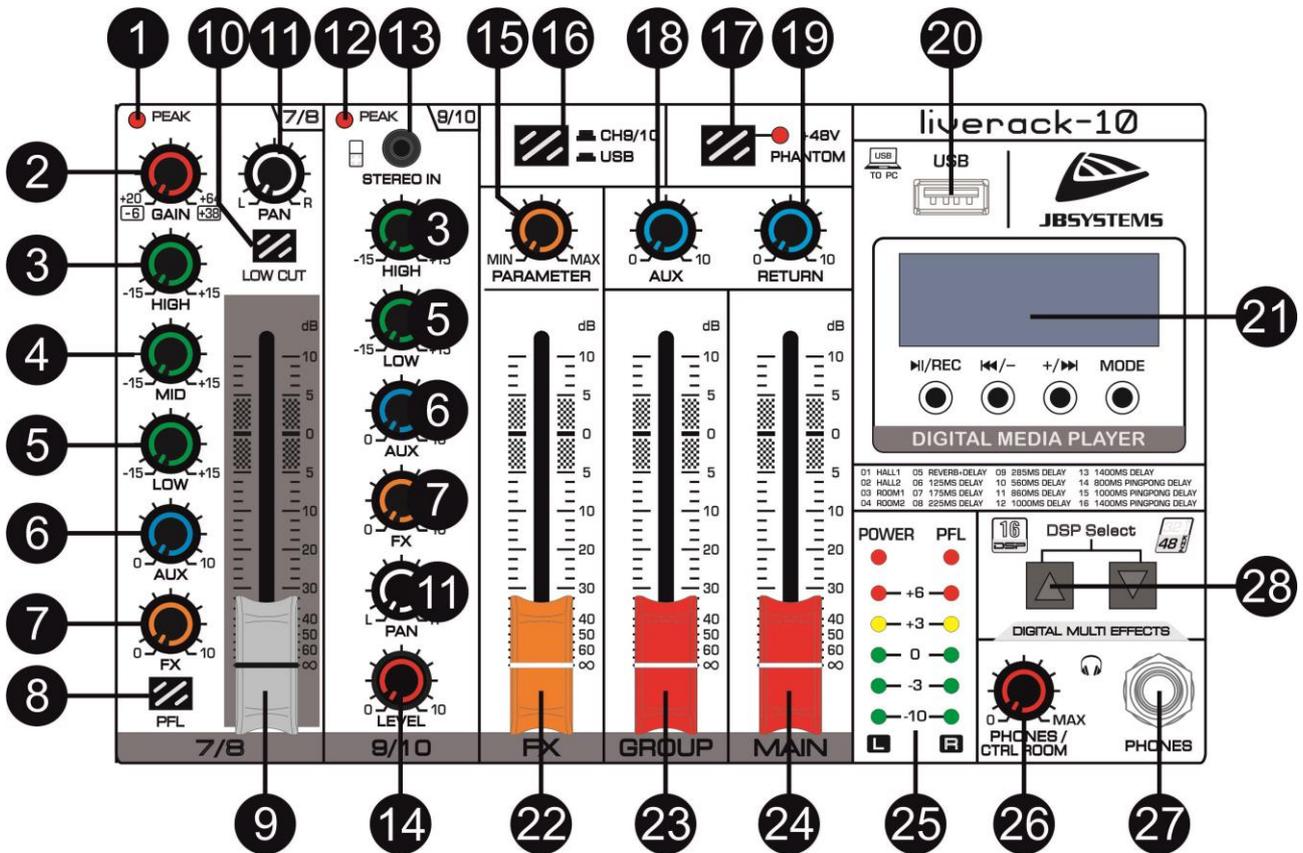
CLEANING THE MIXER:
Clean by wiping with a polished cloth slightly dipped with water. Avoid getting water inside the unit. Do not use volatile liquids such as benzene or thinner which will damage the unit.

CONNECTION EXAMPLES
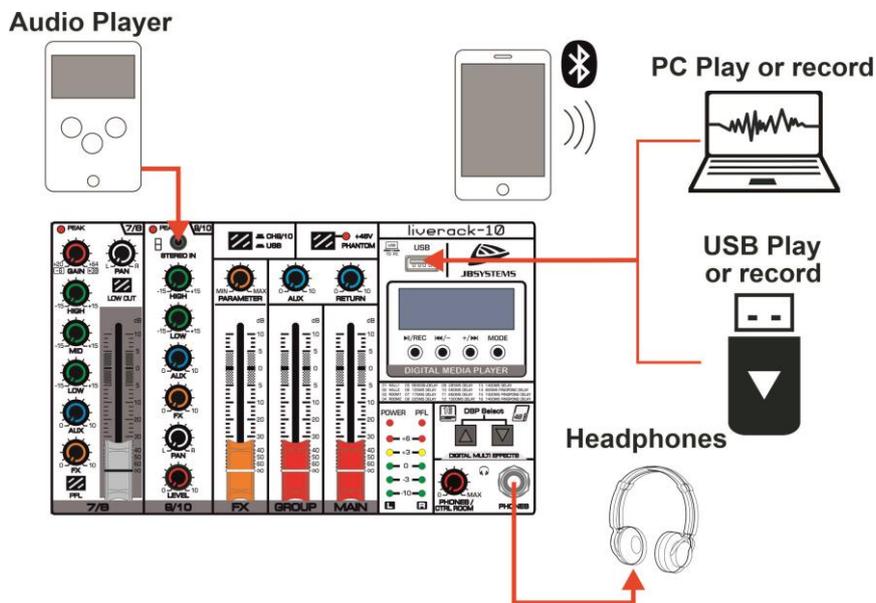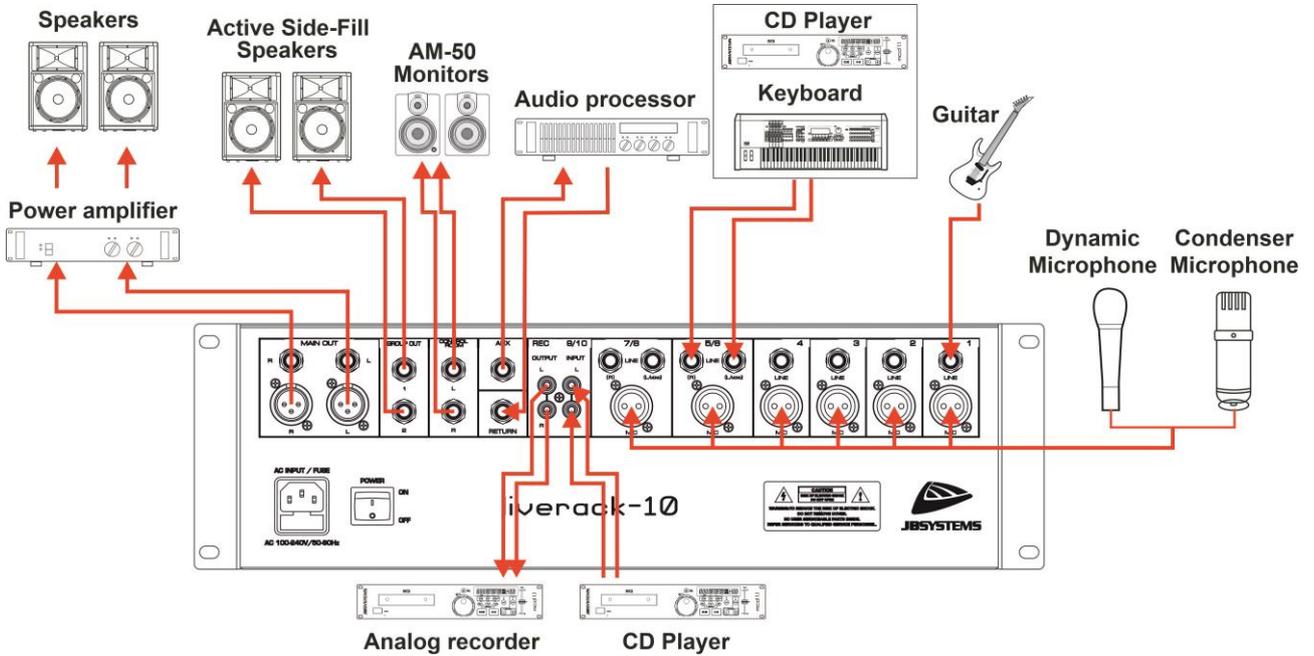
CONTROLS AND FUNCTIONS

1. **[PEAK] LED indicator:** This LED indicator shows the level of the signal input of the channel. The peak indicator lights up when the input signal reaches 5dB below the channel's clipping point. This indicator shows the level of the Post-EQ/ pre-fader signal. If the PEAK indicator lights more than briefly on high-level transients, you should use the red GAIN control knob to decrease the input sensitivity of the channel. If this does not work, reduce the output level of the connected source.
2. **[GAIN] control knob:** According to the level of the input signal, use this knob to adjust the input signal to an appropriate level. The best balance of S/N and dynamic range will be achieved if you adjust the GAIN control so that the peak indicator lights occasionally..
3. **[HIGH]:** This knob adjusts the channel's high frequency band. Setting the knob to the "0" position produces a flat frequency response .Turning the knob to the right boosts the corresponding frequency band ,while turning to the left cuts the band.
4. **[MID]:** This knob adjusts the channel's medium frequency band. Setting the knob to the "0" position produces a flat frequency response .Turning the knob to the right boosts the corresponding frequency band ,while turning to the left cuts the band.
5. **[LOW]:** This knob adjusts the channel's low frequency band. Setting the knob to the "0" position produces a flat frequency response .Turning the knob to the right boosts the corresponding frequency band ,while turning to the left cuts the band.
6. **[AUX] knob:** The AUX knob controls the signal level that the channel sends to the AUX bus. If you are using stereo channels, the signals from the L and R channels are mixed and send to the AUX bus. The Post-fader Aux output is also influenced by the channel faders and are mainly used with effect modules. An AUX SEND master knob is available on the output section
7. **[FX] knob:** This knob controls the level of your channel signal that is sent to the internal effect module.
8. **[PFL] button:** this button is used to send the pre-fader input signal of this channel to the PFL bus. It allows you to monitor the input signal through the headphone outputs and the control room outputs, even when the channel fader is closed.
9. **Channel Fader:** This is the channel's main level control. It determines the level of the signal that is sent from the channel to the master mixing and post fader effect busses (AUX and internal effect module). It is the settings of the input channel faders that determine the mix, or the balance of sound levels between

the instruments or other sources connected to the inputs. When a channel is not being used, its fader should be set at the minimum position to prevent the addition of unwanted noise to the main program signal

10. **[LOW CUT] filter button:** this button can be used to cut frequencies below 80Hz. This can be useful to decrease popping of microphones or to avoid low feedback from acoustic instruments. If you use subwoofers, activating this filter removes the input source from the subwoofers. It helps to create a cleaner mix.

11. **[PAN] knob:** This control pans the channel signal across the master L and R busses, thus determining the perceived position of the sound from that channel in the output stereo sound field. If a PAN control is set all the way to the left, for example, the sound from that channel will be heard from the left speaker system only. If it is set all the way to the right, the sound will be heard from the right speaker system only. Intermediate settings will cause the sound to appear at corresponding locations in the stereo sound field

12. **[PEAK] LED indicator:** This LED indicator shows the level of the signal input of the stereo channel 9/10. The peak indicator lights up when the input signal reaches 5dB below the channel's clipping point. This indicator shows the level of the Post-EQ/ pre-fader signal. If the PEAK indicator lights more than briefly on high-level transients, you should reduce the output level of the connected source.

13. **[STEREO IN] connector:** this minijack can be used to connect a tablet or phone via wire

14. **Channel LEVEL:** This is the channel's main level control for the media player, usb stick or computer input, mini-jack stereo input on the front panel (13) or stereo input on the back (35). It determines the level of the signal that is sent from the channel to the master mixing and post fader effect busses (AUX and internal effect module). When the channel is not being used, its should be set at the minimum position to prevent the addition of unwanted noise to the main program signal

15. **Effect [PARAMETER] knob:** this knob can be used to adapt the selected effect to your taste by adjusting it's parameters. (longer effect, shorter effect, etc.)

16. **[CH9/10 or USB] switch:** with this switch you can select the audio source for channels 9/10
    - ▄▄ = RCA input on the rear / Stereo input on the front
    - ▄▄ = USB Stick (internal player) / computer / Bluetooth

17. **PHANTOM Power switch:** This switch toggles the phantom power on or off.
    Set this switch on when using one or more condenser microphones that need to receive external power from the mixer. When this switch is on, the mixer supplies DC +48V power to pins 2 and 3 of all XLR-type MIC INPUTS.
    - Be sure to leave this switch off ▄▄ if you do not need phantom power
    - When tuning the switch on ▄▄ , be sure that only condenser MICs are connected to the XLR input

    WARNING: Devices other than condenser MICs may be damaged if connected to the phantom power supply. However, the switch may be left on without problem when connecting balanced dynamic microphones.
    To avoid damage to speakers, be sure to turn off the amplifiers (or powered speakers) before turning this switch on or off. We also recommend that you turn all out controls (MAIN master fader, AUX send, etc.) to minimum settings before operating the switch, to avoid risk of loud noises that could cause hearing loss or device damage.

18. **[AUX] send knob:** controls the general level of the AUX output. This Post Fader output is influenced by the blue AUX level knobs and the channel level knobs/faders. The effect is not sent to this output.

19. **Aux [RETURN]:** controls the level of the AUX input that will be sent to the main outputs

20. **USB connector:** can be used to connect a storage device (USB stick) or a computer
    - USB stick: for the recording of the main mix (mp3) or for the playback of WMA, WAV, FLAC, APE and MP3 files
    - PC: use a USB-A / USB-A cable to connect a computer. This port is bidirectional, so you can playback music from your computer or use the computer to record the main mix output

21. **Internal player:** by pressing the [MODE] button shortly you can scroll through the different working modes:
    - **[NO]:** when you are in the internal player mode and no USB stick is connected to the unit, the display will show [NO]
    - **[USB]:** when an USB stick is connected to the unit, the display will show [USB] shortly. The music on the stick will start playing automatically. The 3 other buttons of the internal player are now active:
        - Play/Pause/REC button: can be used to start or pause the playback of a song
        - Back/- button:
            - press it shortly to go to the previous song on the USB device.
            - press it longer to decrease the playback volume
        - Forward/+ button:
            - press it shortly to go to the next song on the USB device.
            - press it longer to increase the playback volume (max = 30)
        - Loop mode: it is possible to select a loop for 1 song or for ALL songs. Press the [MODE] button for a while and one of these options will appear. To go to the other option, press the [MODE] button again for a longer period (no short pressing)
            - [ONE]: only one song will be played in a loop.

- ▪ [ALL]: all the songs on the USB device will be played over and over again
- **[bt]**: Bluetooth is active and ready to receive music from your smartphone, tablet or other Bluetooth device. If your device has already been connected to the mixer before, the connection will be made automatically.
  - ○ Play/Pause/REC button: can be used to start or pause the playback of a song
  - ○ Back/- button:
    - ▪ press it shortly to go to the previous song on the Bluetooth device.
    - ▪ press it longer to decrease the playback volume
  - ○ Forward/+ button:
    - ▪ press it shortly to go to the next song on the Bluetooth device.
    - ▪ press it longer to increase the playback volume (max = 30)
- **[rEC]**: when an USB stick is connected to the unit, you can now record the sound of your MAIN output to your USB stick in MP3 format (125kbps). The recording level is influenced by the level of the MAIN output (faders). Press the REC button for a couple of seconds to start recording.
- **[PC]:** your computer is connected to the mixer. All the audio from your computer will now be sent to the mixer (from audio files, video files, etc.).
  IMPORTANT: When you connect the mixer for the first time to your computer, please wait until the automatic installation is finished.
  - ○ Play/Pause/REC button: can be used to start or pause the playback of the music source on your computer (audio file, video file, etc.)
  - ○ Back/- button:
    - ▪ press it shortly to go to the previous file when a playlist is selected in your computer (audio or video)
    - ▪ press it longer to decrease the playback volume of your computer
  - ○ Forward/+ button:
    - ▪ press it shortly to go to the previous file when a playlist is selected in your computer (audio or video).
    - ▪ press it longer to increase the playback volume of your computer

IMPORTANT REMARK: we strongly advise you to don't lower the playback volume with the [BACK/-] button if it is not really necessary, especially when you are playing music from an USB device. If you put it on "zero" and forget you did this (or another user works with the mixer) there will be no sound available when you try to play a song of the USB device or Bluetooth device ! ☺

22. **[FX] fader:** Adjust the level of the signal sent from the internal digital effect to the MAIN outputs. (this signal is not sent to the AUX output)
23. **[GROUP] fader:** Adjusts the final output level of the GROUP outputs
24. **[MAIN] fader:** Adjusts the final output level of the MAIN outputs
25. **LED Display:**
    - [POWER] Led: is lit when the power is switched on
    - [PFL] Led: is lit when one or several PFL buttons are active
    - L & R level meters: shows the level of the MAIN output
26. **[PHONES/CTRL ROOM]** knob: adjusts the output level of the headphones output and the control room output.
27. **[PHONES] output:** connect your headphones here
28. **[DSP SELECT] buttons:** use these buttons to select one of the 16 effects. (the effect number will appear shortly on the display. Once you have selected your effect, you can still adjust the parameters for this effect by using the [PARAMETER] knob (15)
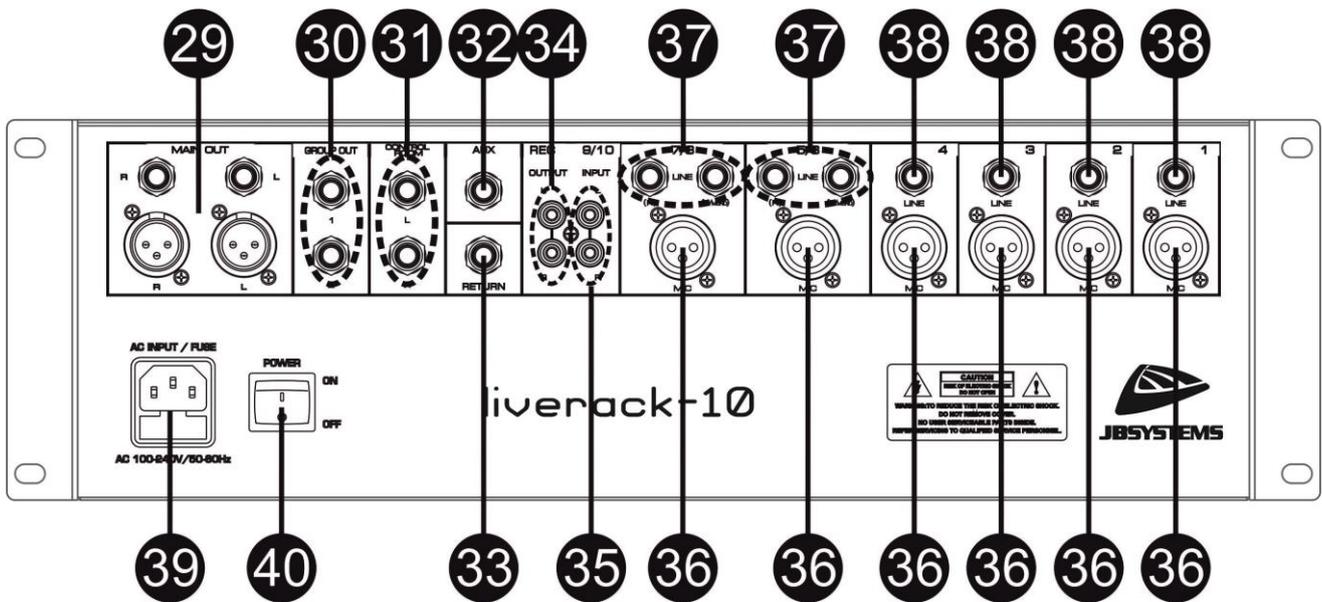
29. **[MAIN OUT]:** Use the balanced XLR-connectors or jack connectors to connect this mixer to any amplifier or active speakers.
30. **[GROUP OUT]:** Use the balanced connectors to connect this mixer to any amplifier or active speakers.
31. **[CONTROL ROOM]:** this output can be used to monitor the mix or the channels that are selected with the PFL buttons (8). The output level can be controlled via the PHONES/CONTROL ROOM knob (26)
32. **AUX:**. The amount of signal of each individual input channel that should be routed to this output can be set by using the blue AUX buttons (6). The general output level is controlled by the AUX knob (18). This output can be used to drive external sound effects. The treated sound can be re-injected in the mix by using the RETURN input (33)
33. **RETURN:** this input can be used to send an external signal into the mix. Its level can be controlled via the RETURN knob (19)
34. **RECORD OUTPUT:** Carries the same signal as the master outputs but is not influenced by the MAIN level fader. Used to connect analog recording equipment.
35. **[9/10 INPUT]:** unbalanced line input that can be controlled via the 9/10 channel section on the front of the mixer. To be able to use this input, you need to deactivate the usb input and media player via the [CH9/10 or USB] selection button (16)
36. **[MIC] input:** Balanced microphone input
37. **[LINE] inputs:** Stereo Line input via Jack connectors. Connect your source to the LEFT input connector If you want to use this channel as a mono Line input.
38. **[LINE] inputs:** Mono Line input via a Jack connector
39. **[AC INPUT / FUSE]:** Use the supplied AC cord to connect the unit to AC mains. Make sure voltage and frequency stated on the unit comply with your local AC supply. The fuse can be accessed by the small drawer at the AC inlet. To change the fuse, unplug the AC cord first, pull out the fuse drawer and replace the fuse ONLY with a fuse of SAME voltage and rating. If the fuse blows again after replacement, hand over the unit to qualified service personnel.
40. **[POWER] SWITCH:** Used to turn the power of the mixer on and off. The red POWER led (25) on the front of the unit is lit when the mixer is switched on.

SPECIFICATIONS

This unit is radio-interference suppressed. This appliance meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer.

Power Supply:	AC 100-240V, 50-60Hz
Power Consumption:	25W
Frequency response:	20-20.000Hz (± 1dB+4dBµ@1KHz)
THD:	<0.5%
Media Player Formats:	WMA, WAV, FLAC, APE, MP3
<u>**Channel tone controls:**</u>	
High:	+15dB / -15dB @ 12kHz
Mid:	+15dB / -15dB @ 2.5kHz
Low:	+15dB / -15dB @ 80Hz
Dimensions:	483(W) x 200(D) x 145(H) mm
Weight:	4,14kg

The information is subject to change without prior notice
You can download the latest version of this user manual on our website: www.jb-systems.eu
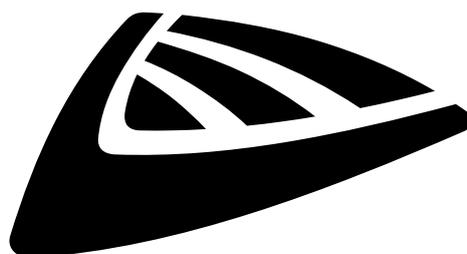
JBSYSTEMS

MAILING LIST

EN: Subscribe today to our mailing list for the latest product news!
FR: Inscrivez-vous à notre liste de distribution si vous souhaitez suivre l'actualité de nos produits!
NL: Abonneer je vandaag nog op onze mailinglijst en ontvang ons laatste product nieuws!
DE: Abonnieren Sie unseren Newsletter und erhalten Sie aktuelle Produktinformationen!
ES: Suscríbete hoy a nuestra lista de correo para recibir las últimas noticias!
PT: Inscreva-se hoje na nossa mailing list para estar a par das últimas notícias!

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