Z44R

Multi-purpose Rack Mixer

Item ref: 953.020UK

User Manual

- 2 balanced microphone inputs
- Lo-cut rumble filters
- 3-band EQ per Mic channel
- Switchable 48V phantom power
- 2 x A/B selectable stereo line inputs
- 2-band EQ per Line channel
- Foot-switchable DSP Reverb or ext. FX
- 4 stereo zones with selectable line outs
- Emergency mute contacts
- Suitable for live vocalist PA
- Suitable for 4-zone installation
- Ideal karaoke add-on for DJ

Version 1.1

Caution: Please read this manual carefully before operating
Damage caused by misuse is not covered by the warranty

Introduction

Thank you for choosing the Adastra Z44R multi-purpose rack mixer. This product has been designed to offer a versatile and wide range of functions to meet many different applications. In order to achieve the best results from this equipment and avoid damage through misuse, please read and follow these instructions and retain for future reference.

Warning

To prevent the risk of fire or electric shock, do not expose any part of the unit to rain or moisture
If liquids are spilled on the surface, stop using immediately, allow unit to dry out and have checked by qualified personnel
Avoid impact, extreme pressure or heavy vibration to the unit
There are no user serviceable parts inside the mixer – refer all servicing to qualified service personnel

Safety

- Check that the supplied mains lead is in good condition and the supply voltage is correct.
- Ensure signal leads are of good condition without shorted connections (especially when using phantom power)
- Do not allow any foreign particles to enter the console through connectors or control apertures

Placement

- Keep out of direct sunlight, away from heat sources and damp or dusty environments
- When rack-mounting, avoid placing heavy units above the Z44R and ensure all connectors are accessible

Cleaning

- Use a soft cloth with a neutral detergent to clean the casing as required
- Use a soft brush to clear debris from the control surface
- Do not use strong solvents for cleaning the unit.

Front Panel
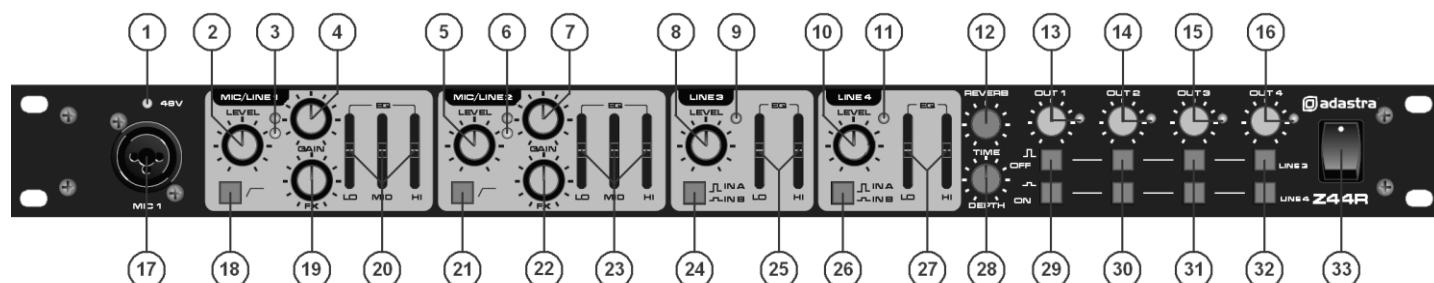
1. 48V phantom power LED indicator
2. MIC/LINE 1 LEVEL control
3. MIC/LINE 1 signal and peak LEDs
4. MIC/LINE 1 GAIN control
5. MIC/LINE 2 LEVEL control
6. MIC/LINE 2 signal and peak LEDs
7. MIC/LINE 2 GAIN control
8. LINE 3 LEVEL control
9. LINE 3 peak LED
10. LINE 4 LEVEL control
11. LINE 4 peak LED
12. REVERB TIME parameter control
13. OUT 1 level control & peak LED
14. OUT 2 level control & peak LED
15. OUT 3 level control & peak LED
16. OUT 4 level control & peak LED

17. MIC/LINE 1 combo input
18. MIC/LINE 1 low-cut rumble filter
19. MIC/LINE 1 FX level control
20. MIC/LINE 1 EQ sliders
21. MIC/LINE 2 low-cut rumble filter
22. MIC/LINE 2 FX level control
23. MIC/LINE 2 EQ sliders
24. LINE 3 source select switch
25. LINE 3 EQ sliders
26. LINE 4 source select switch
27. LINE 4 EQ sliders
28. REVERB DEPTH control
29. OUT 1 line selectors
30. OUT 2 line selectors
31. OUT 3 line selectors
32. OUT 4 line selectors
33. Power ON/OFF switch

Rear Panel
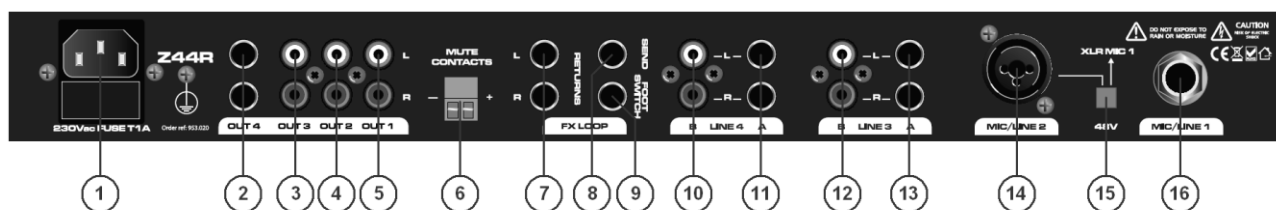
1. IEC mains inlet	9. REVERB or FX LOOP FOOT SWITCH jack
2. OUT 4 jack outputs L+R	10. LINE 4 B input RCAs L+R
3. OUT 3 RCA outputs L+R	11. LINE 4 A input jacks L+R
4. OUT 2 RCA outputs L+R	12. LINE 3 B input RCAs L+R
5. OUT 1 RCA outputs L+R	13. LINE 3 A input jacks L+R
6. MUTE CONTACTS for emergency systems	14. MIC/LINE 2 combo input
7. FX LOOP RETURNS jacks L+R	15. 48V phantom power switch
8. FX LOOP SEND jack	16. MIC/LINE 1 rear jack input

Application

The Z44R can be configured to serve a variety of applications. Deciding upon the particular setup should be the first step in order to ensure all signal leads are connected properly. Some suggested combinations are shown below.

1. **DJ Add-on Vocal Mixer**

    For DJs who want the option to host karaoke events, the Z44R offers 2 extra microphone channels with genuine DSP reverb effect and 2 extra switchable line sources (for laptop, CD+G players, MP3 players etc).
    Adding these extra features takes up just 1U of rack space and can be configured as a sub-mixer into the main DJ console or as the main mixer to offer more stereo outputs…

2. Compact PA Head

The Z44R can be rack-mounted in combination with a power amplifier and/or a wireless receiver to form a PA head for driving passive speaker cabinets. This keeps the format extremely compact for solo/duo performers who only require 2 microphone inputs and up to 2 stereo sources up to whatever power is needed…
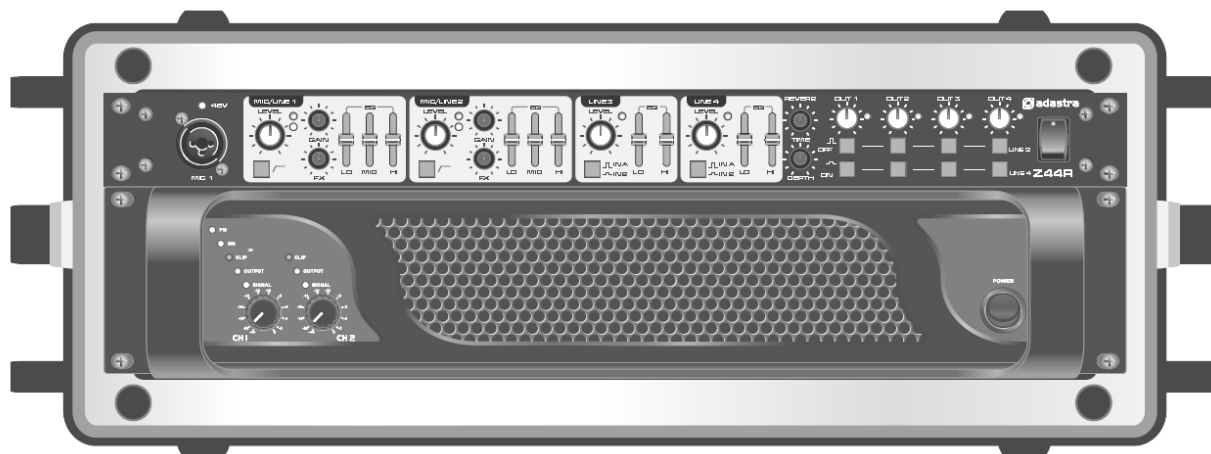

3. Zoning Installation

The Z44R can operate as the main control for a venue installation, feeding up to 4 stereo zones. Both microphone inputs feed to all outputs (for public address and emergency announcements), whereas the 2 line channels are switchable per zone…
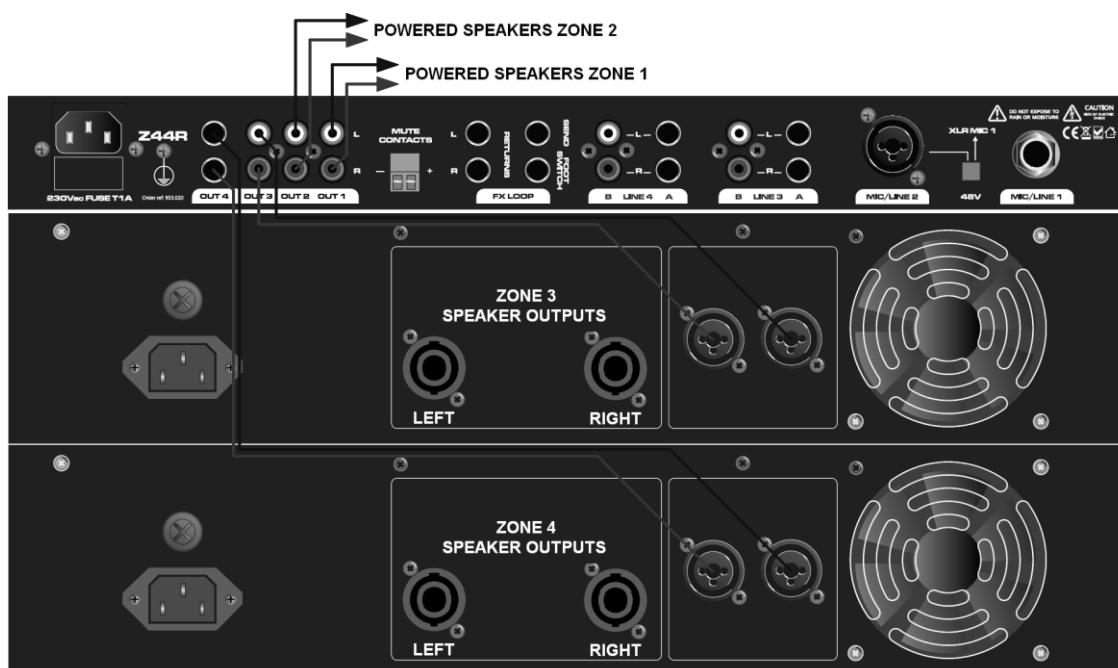

Connection

Before connecting to amplifier or other equipment, turn down all volume controls to avoid loud noises which may cause damage to other equipment. Always switch amplifier power on last in line with volume levels down.

Use good quality 6.3mm jack signal leads to connect OUT 4 outputs from the mixer to the amplifier or powered speaker(s). Further zones or outputs can be served by connecting OUT 1, 2 and 3 to other amplifiers or active speakers using good quality RCA leads.
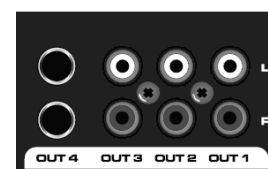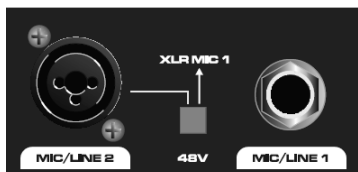
Connect microphones, DI boxes and other balanced low impedance audio inputs to the MIC/LINE combo inputs using good quality XLR leads. Alternatively, connect high impedance and line level signals to the combo inputs using 6.3mm jack leads. (+ additional rear jack input for MIC/LINE 1). If phantom power is to be used for condenser mics, press "+48V" switch and connect using balanced XLR cables.

Connect stereo line level sources to the LINE 3 and LINE 4 channels via the Left + Right Jack or RCA connections on the rear panel. These can be switched, offering a selection of 2 sources for each channel.
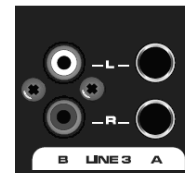
If the internal DSP reverb effect is to be operated remotely, connect a latching foot switch to the rear panel F/S jack. Alternatively, this can switch the feed from an external unit, which should be connected via the FX LOOP. To do this, connect a jack lead from the SEND to the external effect unit and its left & right outputs to RETURN L+R.

In an installation scenario, building regulations may require the sound system to be muted if the fire alarm is triggered. The green MUTE contacts on the rear panel will kill all channels except MIC 1 if the contacts are shorted. This can be patched in to the venue fire alarm panel to kill all music in the event of a fire, leaving the main microphone active for emergency announcements.

Operation

1. MIC/LINE channels 1 and 2

- Turn all MIC level and LINE LEVEL controls to minimum **(2, 5, 8 & 10)**
- Set LO, MID and HI **(20 & 23)** controls to the centre position and turn FX down **(19 & 22)**
- Switch on the power on the right side of the front panel. **(33)**
- Check each microphone input, gradually increasing GAIN **(4 & 7)** until the red Peak LED flashes **(3 & 6)** and then back off the GAIN until only the green Signal LED lights up
- Gradually turn up the OUT volume controls **(13, 14, 15 & 16)** part way
- Increase the MIC/LINE 1 and 2 LEVEL controls **(2 & 5)** to the desired level, taking care to avoid distortion or feedback from the microphones.
- Adjust LO, MID and HI controls to set the desired bass, middle and treble content for each MIC/LINE input
- If effects are to be used, temporarily unplug the foot switch (if used) and increase the DEPTH control **(28)** on the front panel. Gradually turn up the FX control(s) **(19 22)** for the relevant MIC channel(s) and adjust the TIME **(12)** control to set the desired length of reverb effect. Plug the footswitch back in and use to switch the effect in/out.
- For some microphones, it can be beneficial to "roll-off" the very low frequencies caused by handling and vibration to the microphone body. If required, press in the Lo-cut Rumble Filter switch **(18 & 21)** on the microphone channel to reduce this type of noise.

2. Stereo LINE channels 3 and 4

- For LINE 3 and 4 channels, check which pair of inputs the signal is plugged into - jack (A) or RCA (B) – and set accordingly via the Source Select switches **(24 & 26)** on the front panel
- Press in all of the OUT line selectors **(29, 30, 31 & 32)**
- Set HI and LO controls **(25 & 27)** to the centre position
- Play the stereo line signal into the relevant channel and increase the LEVEL **(8 & 10)** control as required
- Adjust HI and LO controls to set the desired bass and treble content of the stereo line channels

3. Stereo OUTs 1 - 4

- Adjust the OUT volume controls **(13, 14, 15 & 16**) so that the red Peak LEDs do not light constantly
- Press <u>out</u> any line selectors **(29, 30, 31 & 32)** for any stereo inputs which are not required to be fed through any output (MIC/LINE inputs are always fed to all outputs)

Specifications

Power Supply	230 – 250Vac 50Hz (IEC)
Mic/Line channel inputs	Ch 1 front combo and rear jack, Ch 2 combo (rear)
Mic/Line channel controls	Level, Lo-cut, Gain, FX and Lo/Mid/Hi EQ faders
Line 3 + 4 stereo inputs	Input A (L+R) 6.3mm jack / Input B (L+R) RCA
Line 3 + 4 stereo controls	Level, In A/B and Lo/Hi EQ faders
Output connections	Outputs 1-3 (L+R) RCA, Output 4 (L+R) 6.3mm jack
Output controls	Level, Line 3 on/off, Line 4 on/off
FX connections (6.3mm jack)	Footswitch, Send (defeats onboard reverb), L+R Return
FX controls	Reverb time, Depth (onboard or external level)
Indicators (LED)	Power, 48V, Mic/line signal+peak, Line peak, Output peak
Fire alarm contacts	Modular terminal, make-to-mute all except Mic 1
Dimensions	483 x 44 x 220mm
Weight	2.75kg

Troubleshooting

No power LED on front panel	Ensure mains voltage is correct and connected properly
	Ensure front panel power switch and mains outlet switch are on
Power LED is on but no other LEDs and no output	Check XLR, jack and RCA leads are OK and connected properly
	Ensure that low impedance mics. are connected with XLR, not jack
	Check microphone or line signal is switched on
	Ensure that any playback devices are not set to "Stop" or "Pause"
	Ensure GAIN and LEVEL controls are not turned fully down
	For condenser microphones, check that 48V is on and connected by XLR
Power light and output LEDs lighting but no output	Check that stereo input selectors are not switched out
	Check OUT volume controls are not turned fully down
	Check OUT connections to amplifier or recorder are OK
	Check amplifier or recorder levels are not turned fully down
	Check that fire contacts are not shorted out to mute
	For condenser microphones, check that 48V is on and connected by XLR
Output is very loud or distorted	Check level of amplifier, active speaker or recording device not set too low
	Check level of input signal is not too high
	Reduce input channel GAIN, LEVEL and EQ settings
	Reduce OUT volume control(s)
	Ensure Hi-Z line level input(s) are not connected via XLR
	Check FX controls and DEPTH control, reducing if necessary
	Check input gain level on recorder or recording software
Output is working but at very low level	Check level of amp, active speaker or recording device not set too high
	Check level of input signal is not too low
	Ensure low impedance line or mic signal is connected via XLR, not jack
	Increase input channel GAIN, LEVEL and EQ settings if turned down
	Increase OUT volume control(s)
Feedback (loud squealing/howling from mics)	Face microphone away from speakers and monitors
	Reduce channel GAIN, LEVEL and EQ controls
	Reduce channel FX controls and/or Reverb DEPTH
	Reduce OUT volume controls and/or amplifier/active speaker volume level