

## RMS1202

1U DUAL-ZONE MIXER-AMPLIFIER

Item ref: 953.154UK

User Manual



Version 1.0



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

## Introduction

Thank you for choosing an Adastra RMS1202 dual-zone mixer-amp as part of your sound system. This low impedance or 100V power amplifier has the advantage of selectable global or individual inputs and a paging mic input. Please read this manual to gain the best results from your product and avoid damage through misuse.

### SAFETY SYMBOL AND MESSAGE CONVENTIONS



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN

**AVIS**  
RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



### SAFETY NOTICE

1. Prior to use, read through this manual
2. Keep the manual in good condition
3. Pay attention to safety warnings
4. Observe all operating requirements
5. Do not use the device near water or wet areas
6. For cleaning, only use a lint-free, dry cloth
7. Install according to the specifications
8. Place away from heat sources or heating appliances
9. Use mains lead provided and avoid damage to cable or connectors
10. Unplug power from mains during stormy weather or if unused for long periods
11. In case of malfunction, water ingress or other damage, consult qualified service personnel
12. Do not place in damp areas or near liquids or moisture. Do not spill liquids on the housing
13. Please pay attention to warning symbols during transit and placement
14. Terminals marked with the ⚡ symbol are HAZARDOUS LIVE and should only be connected by qualified personnel
15. Ensure that the apparatus is connected to a mains socket with a protective EARTH connection
16. Ensure correct operation of the mains switch

### Warning

To prevent the risk of fire or electric shock, do not expose any components to rain or moisture. If liquids are spilled on the casing, stop using immediately, allow unit to dry out and have checked by qualified personnel before further use.

Avoid impact, extreme pressure or heavy vibration to the case

No user serviceable parts inside – Do not open the case – refer all servicing to qualified service personnel.

### Safety

- Check for correct mains voltage and condition of IEC lead before connecting to power outlet

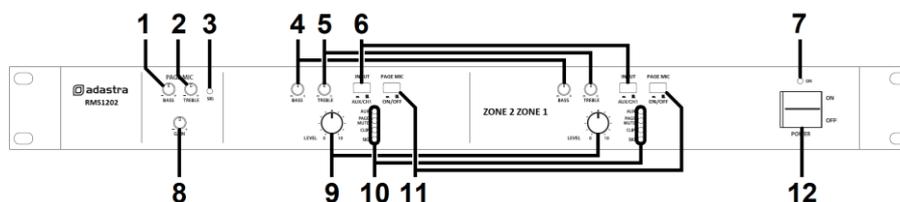
### Placement

- This unit can be used free-standing or fixed into a 19" rack
- Ensure adequate support and access to controls and connectors when rack-mounting

### Cleaning

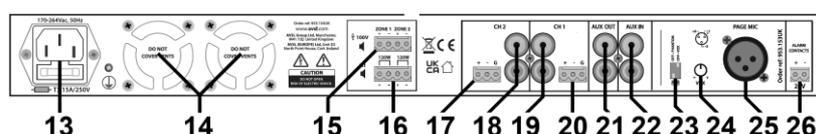
- Use a soft cloth with a neutral detergent to clean the housing as required
- Do not use strong solvents for cleaning the unit

## Front panel



- |   |   |
|---|---|
| 1. BASS EQ – Paging Mic input               | 7. Power on indicator                   |
| 2. TREBLE EQ – Paging Mic input             | 8. GAIN control – Paging Mic input      |
| 3. Signal indicator – Paging Mic input      | 9. LEVEL control – Output channels      |
| 4. BASS EQ – Output channels                | 10. Status indicators – Output channels |
| 5. TREBLE EQ – Output channels              | 11. PAGE MIC on/off select              |
| 6. INPUT select – AUX or Individual Channel | 12. Power on/off switch                 |

## Rear panel



- |  |  |
|--|--|
| 13. IEC mains inlet and fuse holder            | 20. Channel 1 balanced input screw terminals |
| 14. Cooling fan vents                          | 21. Auxiliary line output 2 x RCA sockets    |
| 15. 100V speaker output screw terminals        | 22. Auxiliary line input 2 x RCA sockets     |
| 16. 4Ω speaker output screw terminals          | 23. Phantom power and Vox DIP switches       |
| 17. Channel 2 balanced input screw terminals   | 24. Paging mic VOX sensitivity control       |
| 18. Channel 2 unbalanced input 2 x RCA sockets | 25. Paging mic balanced XLR input            |
| 19. Channel 1 unbalanced input 2 x RCA sockets | 26. 24V emergency mute terminals             |

## Connection

Ensure the Power (12) is switched off until all input and output connections are in place.  
Turn both output rotary level controls (9) fully down (anti-clockwise) to avoid loud noises when switching on.  
Set the BASS and TREBLE Tone controls (1, 2, 4, 5) to the vertical position (zero)

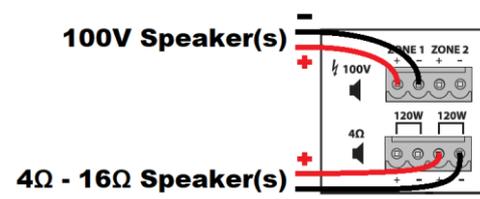
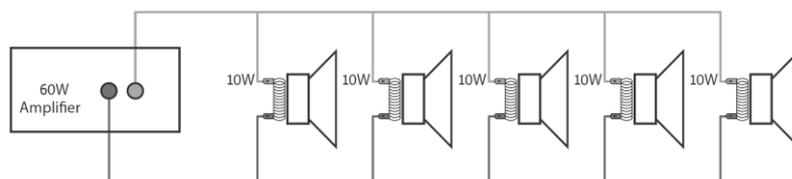
Loudspeakers should be connected to the RMS1202 via screw terminals on the 2 removable modular connectors.  
For standard low impedance speakers (4Ω, 8Ω, 16Ω - i.e. not 100V type), use the bottom row of +/- terminals (16)  
Connect + and – wires to each speaker as indicated, ensuring that there is no chance of strands shorting across terminals.

**Important:** Ensure that the load is no lower than 4Ω for each output. This can be...

- |  |   |
|--|---|
| 1 x 4Ω speaker                         | 1 x 16Ω speaker                           |
| 1 x 8Ω speaker                         | 2 x 16Ω speakers wired in parallel (8Ω)   |
| 2 x 8Ω speakers wired in parallel (4Ω) | 3 x 16Ω speakers wired in parallel (5.3Ω) |
|  | 4 x 16Ω speakers wired in parallel (4Ω)   |

Ensure that the connected speakers can handle 120W from each output.

If the speaker(s) being connected to an output channel are 100V type, use the top row of terminals (15)  
When connecting multiple 100V speakers to this output, connect all speakers in parallel and aim to connect up to 90% of the maximum output power (i.e. 108W).  
The wattage of each speaker can sometimes be adjusted via tappings on the speaker (check the speaker's documentation if unsure)



For either speaker output, choose whether the speakers connected will be 100V type or standard low impedance (i.e. 4Ω, 8Ω, 16Ω) type.

DO NOT connect to both 4Ω and 100V terminals for one output channel  
DO NOT mix 4Ω and 100V speakers on any single output.

THERE SHOULD BE NO CONNECTIONS VERTICALLY ABOVE OR BELOW EACH OTHER

The RMS1202 has 2 independent speaker output channels and can be used as a 2-way slave amplifier. Set each AUX/CH switch (6) to the 'out' position for individual channel input.

If connecting input to a channel via the pair of RCA inputs (18, 19, 21), these will be summed to mono. If connecting input to a channel via Euroblock terminals (17, 20), the green block may be removed from the panel for convenience. Connect the signal "+" connection to the "+" screw terminal and the "-" connection to the "-" screw terminal. If there is a separate "ground" connection (i.e. balanced cable), connect this to the "G" terminal. Otherwise, for unbalanced connections, connect signal to "+" and ground to "G" (or link both "-" and "G" with a piece of wire)

If 2 or more channels will share the same audio source, there is an option to connect this to the AUX input (21) To route the AUX to any of the output channels, press the AUX/CH switch to the 'in' position for each channel to receive the AUX input. For convenience, the AUX/CH switch (6) can be switched in or out whenever AUX or individual channel input is needed.

For announcements and alerts, there is a PAGING MIC XLR input on the rear panel (25) Connect a microphone to this input if required and select the PHANTOM power DIP switch (23) to "on" if it is a condenser microphone which requires external phantom power from the XLR connector. Next to the PHANTOM power DIP switch is the VOX DIP switch for voice override. Switching this to the "on" position will cause all other inputs to be muted when a sound is detected through the paging microphone input. The amount by which this muting takes effect is adjusted using the "VOX" rotary trim control (24)

The paging mic input can be switched to either output channel by pressing in the PAGE MIC on/off switch. The paging mic is governed by a GAIN control (8) and BASS + TREBLE tone controls (1, 2). If the microphone is too quiet, increase the GAIN control or if it is too loud, turn this control down. Adjust the BASS and TREBLE controls to achieve the required tonal balance for the microphone output.

If available, connect a 24V trigger from an alarm panel to the alarm contacts (26) to mute all except channel 1 in an emergency.

Connect the rear IEC inlet (13) to the mains using the supplied mains lead (or an equivalent approved type). Ensure that the supply voltage is correct for this equipment and that the mains outlet is switched on.

## Operation

When all signal and speaker connections are made, power up the RMS1202 and gradually increase the LEVEL control (9) of each channel to check the output from both zones. Adjust the levels to the required amount and use the BASS and TREBLE controls (4, 5) to adjust the tone as necessary. For each EQ control, the 12 o'clock position is zero and rotating left decreases the amount of bass or treble, whilst rotating right increases the amount of bass or treble.

Test the paging mic input by gradually adjusting the GAIN control (8) to the level needed to hear the microphone clearly through all channels. Again, adjust BASS and TREBLE controls (1, 2) to ensure that the paging mic output is clear and intelligible. If the VOX function is being used, adjust the VOX control (24) on the rear panel to the sensitivity required to hear announcements over background music. If needed, test the emergency mute contacts (26) by applying 24V across the terminals as indicated – all inputs except for the paging microphone should be muted.

After use, turn down all LEVEL controls before powering down to avoid loud pops or clicks through the connected speakers.

## Specifications

Power supply	170-264Vac, 50/60Hz (IEC)
Fuse	T3.15AL (250V)
Output Per Channel RMS @ 100V	120Wrms
Output Per Channel RMS @ 4Ω	120Wrms
Output Per Channel RMS @ 8Ω	68Wrms
Output Per Channel RMS @ 16Ω	36Wrms
Inputs	1 x mic (XLR) + 5 line inputs (L+R RCA or +/-/GND terminals) + 1 Aux input (L+R RCA)
Speaker outputs	100V +/- for Ch1+Ch2 or 4-16 Ω +/- for Ch1+Ch2 (Euroblock screw terminals)
Auxiliary output	Line out (2 x RCA)
Input sensitivity	-24dBV (mic), -10dBV (line/aux)
Frequency response	100Hz – 20kHz
THD	1.0%
SNR	80dB (line), 75dB (mic)
Dimensions	482 x 252 x 44mm
Weight	5.04kg



**Disposal:** The "Crossed Wheelie Bin" symbol on the product means that the product is classed as Electrical or Electronic equipment and should not be disposed with other household or commercial waste at the end of its useful life. The goods must be disposed of according to your local council guidelines.