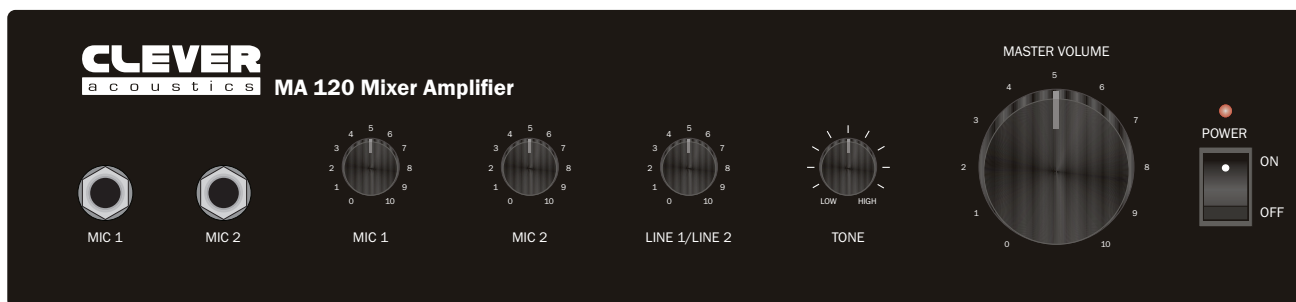




# MA 120 100V 20W Mixer Amplifier User Manual



Order code: CRAM30

## WARNING

### FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

- Before your initial start-up, please make sure that there is no damage caused during transportation.
- Should there be any damage, consult your dealer and do not use the equipment.
- To maintain the equipment in good working condition and to ensure safe operation, it is necessary for the user to follow the safety instructions and warning notes written in this manual.
- Please note that damages caused by user modifications to this equipment are not subject to warranty.



**CAUTION!**  
**KEEP THIS EQUIPMENT**  
**AWAY FROM RAIN,**  
**MOISTURE AND LIQUIDS**



**CAUTION!**  
**TAKE CARE USING**  
**THIS EQUIPMENT!**  
**HIGH VOLTAGE-RISK**  
**OF ELECTRIC SHOCK!!**

### IMPORTANT:

**The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorised modification to the equipment.**

- Never let the power cable come into contact with other cables. Handle the power cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the unit.
- Do not open the equipment and do not modify the unit.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available voltage is 240V, 50Hz AC or 12V DC.
- Make sure that the power cable is never crimped or damaged. Check the equipment and the power cable periodically.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately and have a qualified engineer inspect the equipment before operating again.
- If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not connect power or switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
- If your product fails to function correctly, stop use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Prolight dealer for service.
- Only use fuses of same type and rating.
- Repairs, servicing and power connection must only be carried out by a qualified technician. **THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.**
- **WARRANTY:** Three years from date of purchase.

### OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual, the product may suffer damage and the warranty becomes void. Incorrect operation may lead to danger e.g: short-circuit, burns and electric shocks etc.

Do not endanger your own safety and the safety of others!

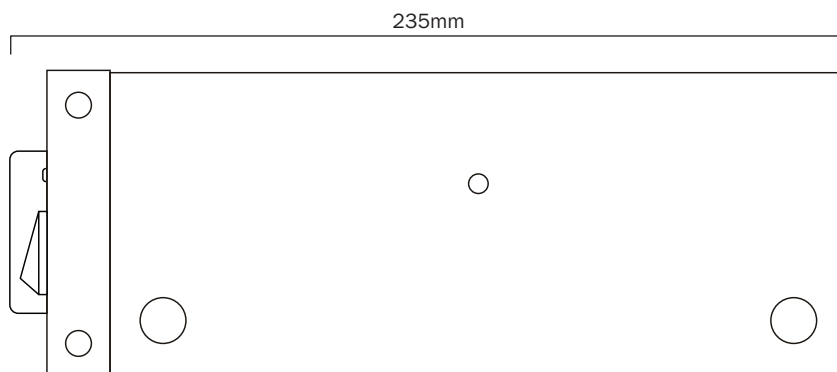
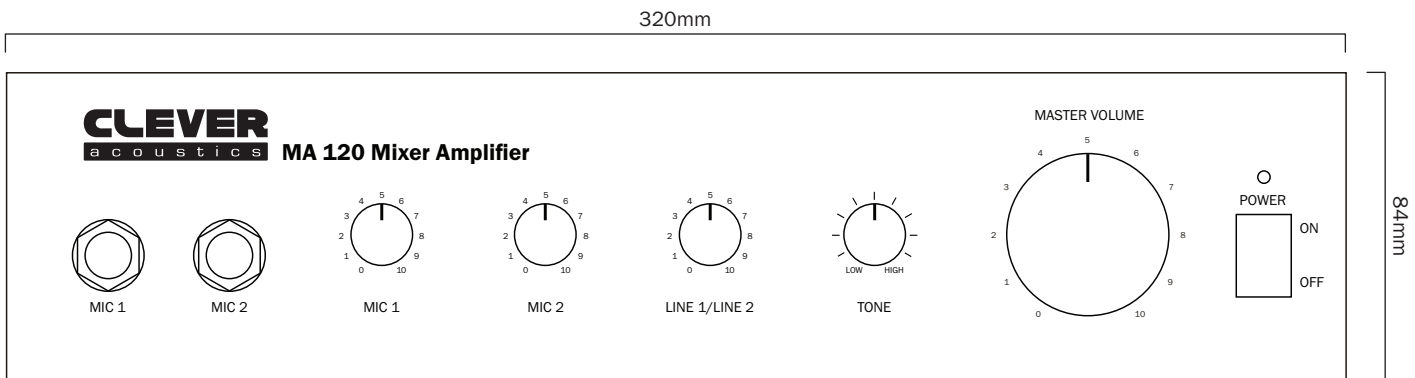
Incorrect installation or use can cause serious damage to people and/or property.

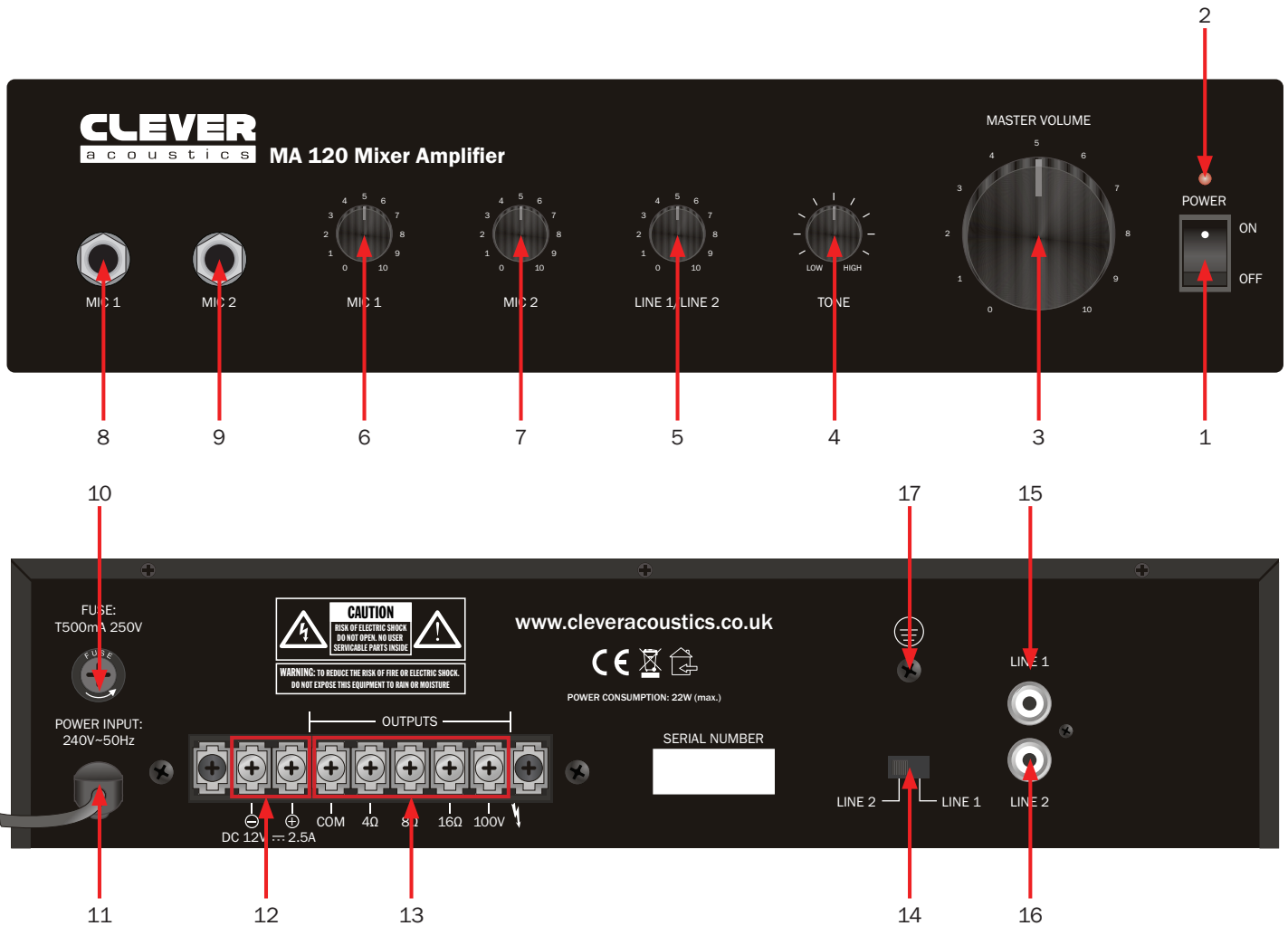
**MA 120 100V 20W Mixer Amplifier**

A compact, desktop mixer amplifier suitable for small offices, retail spaces and garage forecourts. The 12V DC input allows the amplifier to be powered from DC power backup sources or alternatively from leisure type batteries for sound reinforcement in remote locations away from mains power.

- 100V and low impedance 4-16Ω loudspeaker output
- Two unbalanced microphone inputs via 6.35mm ( ¼” jack) each with independent level controls
- Phono-RIAA/LINE inputs (switchable) with level control
- Master tone control
- Master volume control
- Screw terminal loudspeaker outputs with touch proof cover
- Captive power connection
- Convection cooled for silent operation

Specifications	MA 120 Mixer Amplifier
Power output	20Wrms (40W peak)
Speaker output	100V & 4-16Ω
Microphone sensitivity	-48dB (±2dB)
Aux input sensitivity	-12dB (±2dB)
Frequency response	100Hz-13kHz (±3dB)
Tone control	±10dB
S/N ratio	>55dB
THD	<1% (@1kHz 1W output)
Power consumption	22W (max.)
Power supply	240V AC 50Hz / 12V DC (2.5A)
Fuse	T500mA 250V
Dimensions	84 x 320 x 235mm
Weight	4.2kg
Order code	CRAM30





- |                                  |                               |   |
|----------------------------------|-------------------------------|---|
| 01 - Power on/off switch         | 07 - MIC 2 level control      | 13 - Loudspeaker output terminals                                   |
| 02 - Power LED                   | 08 - MIC 1 input              | 14 - LINE 1/LINE 2 selector switch                                  |
| 03 - Master volume control       | 09 - MIC 2 input              | 15 - LINE 1 input RCA connectors<br>- LINE Level                    |
| 04 - Tone control                | 10 - Fuse: T500mA 250V        | 16 - LINE 2 input RCA connectors<br>- RIAA for Turntable Connection |
| 05 - LINE 1/LINE 2 level control | 11 - Captive power connection | 17 - Ground connection  |
| 06 - MIC 1 level control         | 12 - DC power input terminals |   |

**Mains voltage supply:**

Before connecting the amplifier to the local mains voltage outlet should be checked to ensure the available supply is 240V~AC 50Hz. This product is CLASS1 and requires a protective mains earth to be connected at all times. **DO NOT** remove or disconnect the earth.

**Power on/off procedure:**

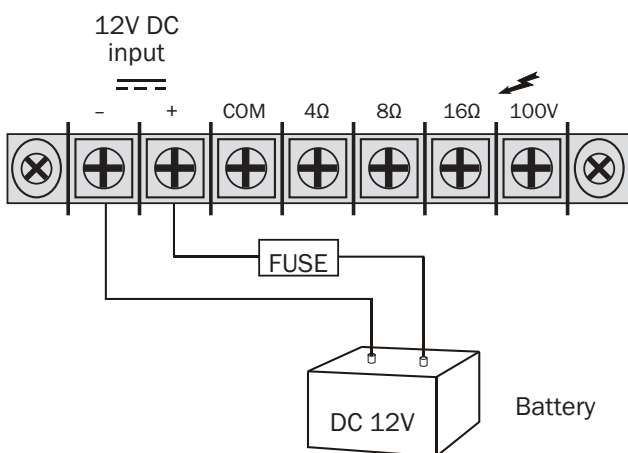
After connecting your amplifier to the mains, turn all controls counter clockwise to the “0” position. Turn on audio sources (MP3 players, CD players, microphones etc) before powering the amplifier “ON”. The last product to be switched on is the amplifier. If you wish to power off the system, turn the amplifier’s master volume control counter clockwise to the “0” position before switching the amplifier “OFF” before any audio sources are switched off. By following this procedure it will prevent acoustic shocks to the speakers or potential damage to system components.

After connecting all audio sources and powering on the mixer amplifier, adjust the level of each audio input to achieve the desired “mix”. Care should be taken to when adjusting microphone input volumes and the master volume, adjust both of these in small increment’s to avoid feedback (howl around). The goal is to achieve a clear balance between music and voice ensuring announcements can be clearly heard.

**DC power connection:**

The MA 120 features a 12V DC power input for operation from leisure type batteries or from battery DC backup sources. The amplifier should be connected to a fused, 12V DC source via the DC power input terminals (11) ensuring care is taken to observe the correct polarity. The amplifier will automatically transfer to DC operation should the main 240V input fail. The transfer is instantaneous and silent.

**Please note:** The power on/off switch does not have any control over the 12V DC power input.



**Master volume control:**

The master volume control affects the level of all audio sources within the amplifier. Turn the level control anti-clockwise to the lowest setting, or turn clockwise to adjust the overall output to the highest setting. Adjustments should be made gradually to avoid any sudden changes to the audio output.

**Tone control:**

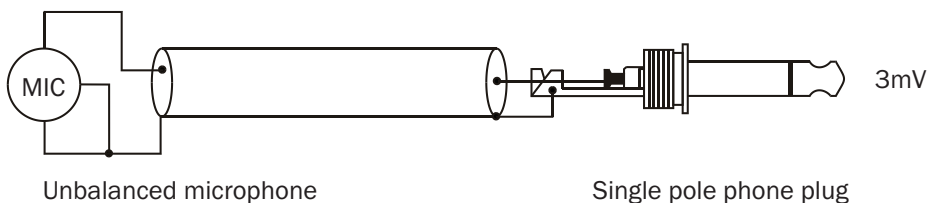
The tone control can be used to adjust the overall sound from the amplifier. Turn anti-clockwise for more bass, or turn clockwise for more mid & treble.

**Microphone inputs:**

Two low impedance microphone inputs are provided, each located on the front panel via an unbalanced, 6.35mm (1/4") jack. Each microphone input features its own independent level control.

Before connecting a microphone, turn the level control anti clockwise to the lowest setting. After connection, gradually increase the level control by turning clockwise until the desired level is achieved.

Note: Unbalanced cable lengths should be kept to the minimum length possible, ideally under 20m and away from any potential sources of interference including power, speaker and control cables/equipment.



**Line inputs:**

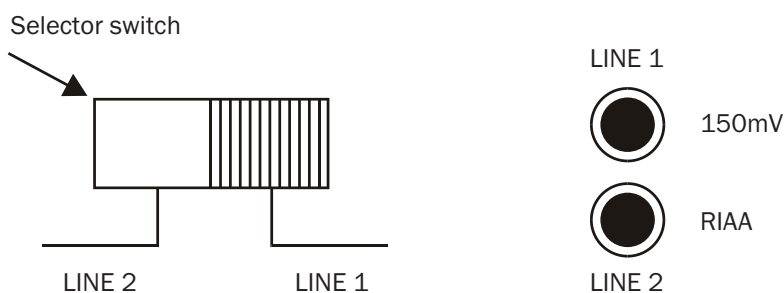
The amplifier features two audio inputs located on the rear panel, each input features a mono RCA (phono) input connector.

The LINE 1 input is designed for line level sources (150mV) such as CD players or MP3 players.

The LINE 2 input is designed for RIAA level sources such as Turntables.

A “Y” cable may be required to combine Left and Right outputs from stereo sources.

Note: Only one of the two inputs may be used at any one time, the selector switch may be used to choose from the two inputs. Slide the switch to the left to select LINE 2 or slide to the right to LINE 1.

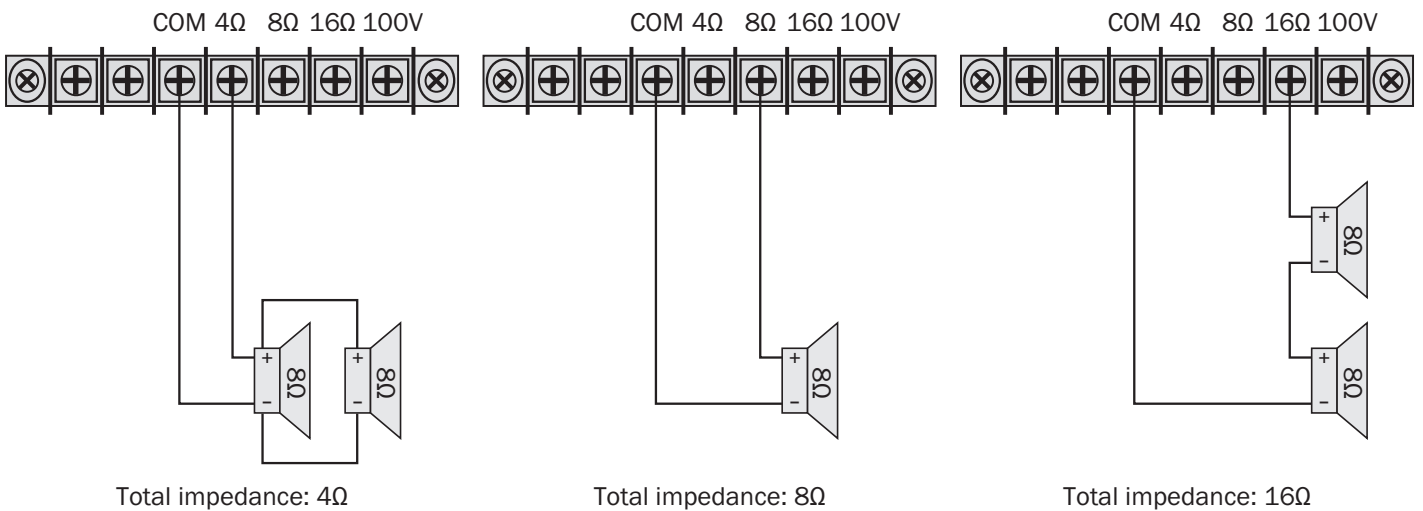


**Output connections:**

The amplifier may be used to drive either low impedance (4/8/16Ω) loads or 100V line constant voltage loads, only one output may be used, the amplifier is not designed to drive multiple loads simultaneously.

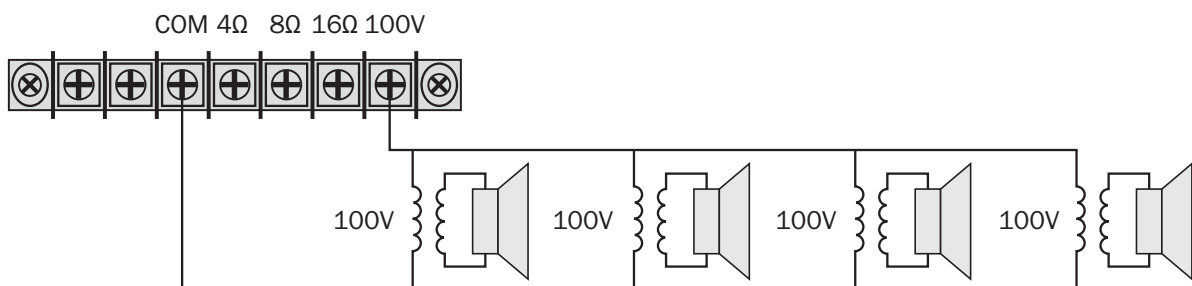
**Low impedance:**

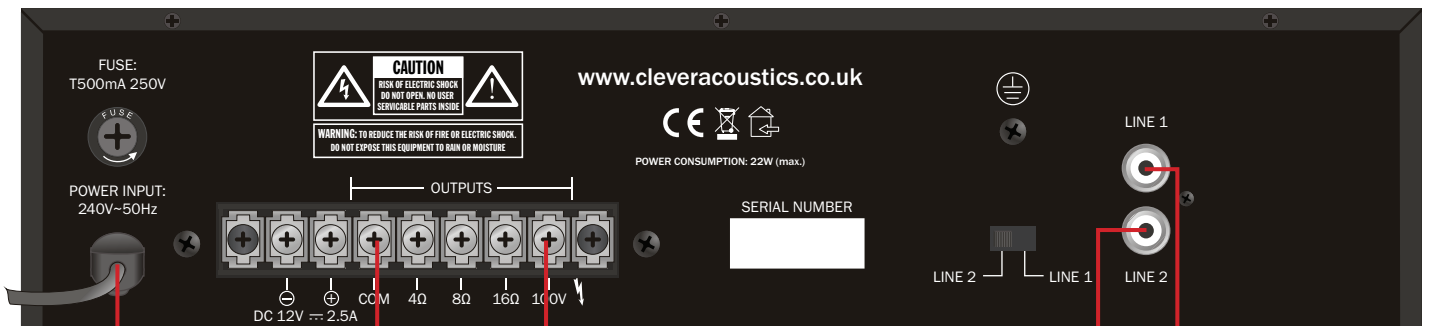
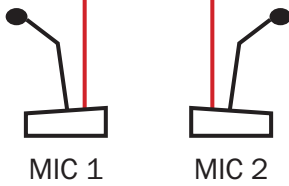
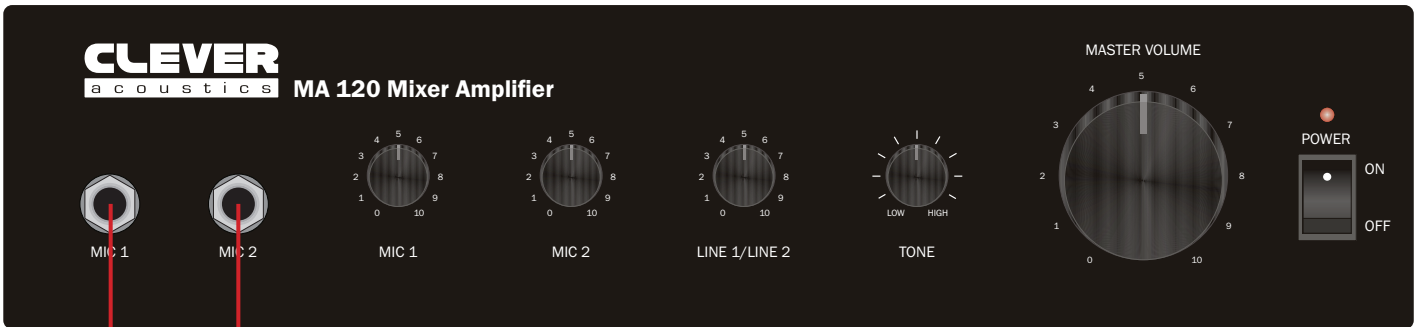
The amplifier has been designed to drive into loads between 4Ω and 16Ω. The appropriate output terminal should be selected to match the impedance of the speakers to be connected. When installing low impedance speaker systems, the cable lengths should be kept to a minimum to help prevent voltage drop within the cable. **DO NOT** connect a speaker load to the amplifiers output terminals of lower impedance than is marked on the output terminals.



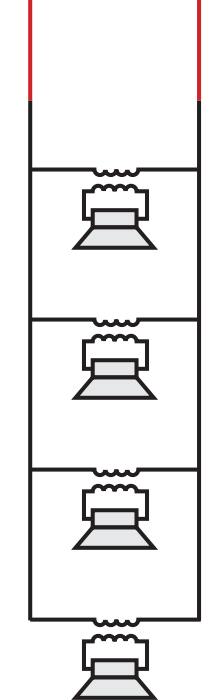
**100V Line:**

For longer cable runs, the amplifier may be used to drive 100V loudspeaker systems reducing losses within the cable. Connect the 100V line level loudspeakers using a parallel wiring configuration taking care to ensure the load connected to the amplifier is within 85% of the amplifiers rated wattage to leave appropriate headroom. Care should be taken to check the wiring and load for short circuits before connecting the cable to the COM and 100V terminals on the rear panel.

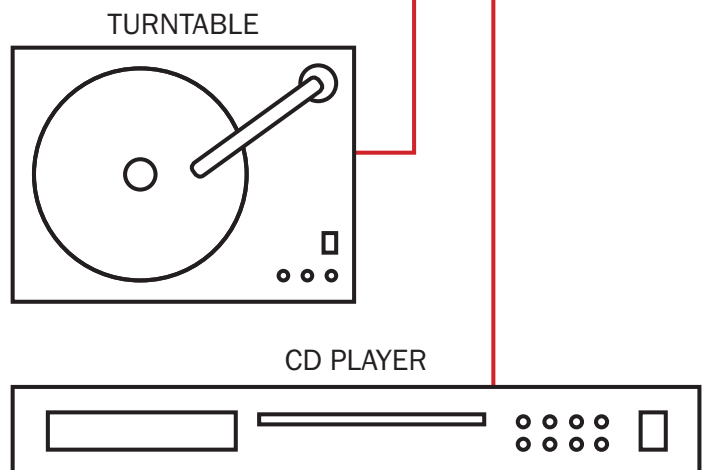




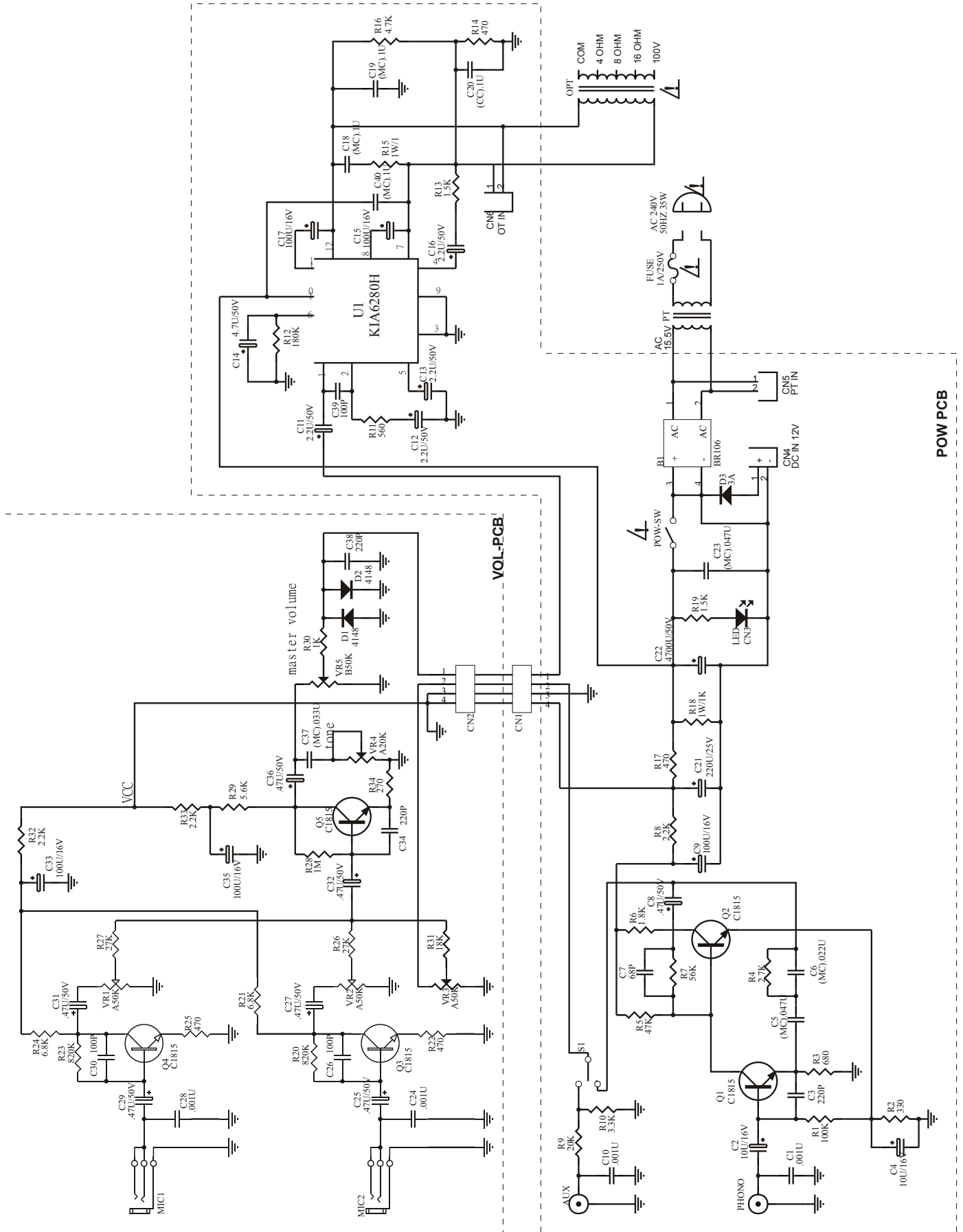
MAINS



LOUDSPEAKERS









***Correct Disposal of this Product  
(Waste Electrical & Electronic Equipment)***

**(Applicable in the European Union and other European countries  
with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.





