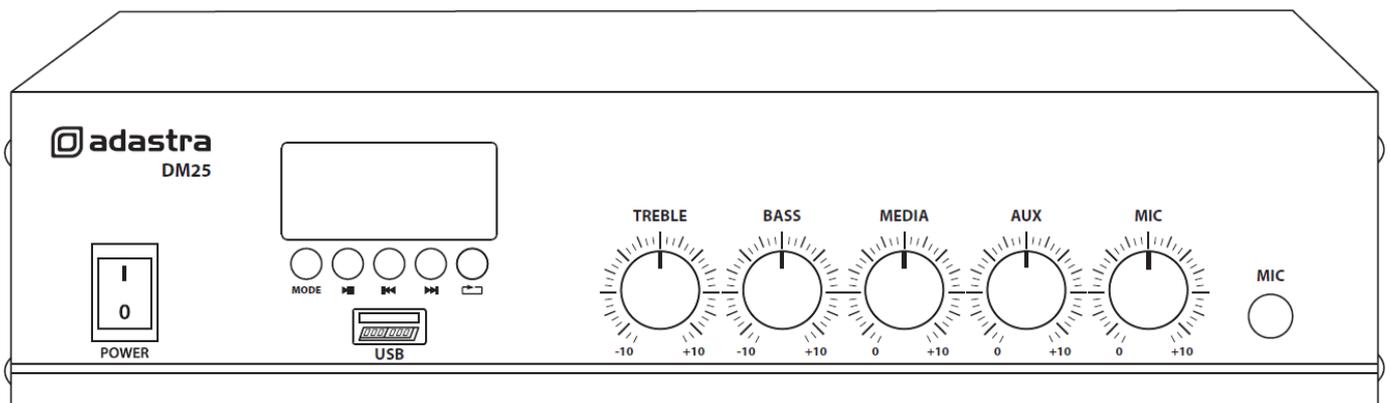


DM25

Compact 100V mixer-amplifier with Bluetooth®

Item ref: 953.108UK

User Manual



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 DM25 compact 100V mixer-amplifier as part of your public address system. This amplifier is designed to offer high quality, dependable service for mobile and installed systems. Please read this manual fully and follow the instructions to achieve the best results with your new purchase and to avoid damage through misuse.

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
- Use double insulated speaker wire with adequate current rating for 100V speaker connections
- Do not use 4-16Ω and 100V terminals at the same time
- Do not allow any foreign objects to enter the case or through the ventilation grilles

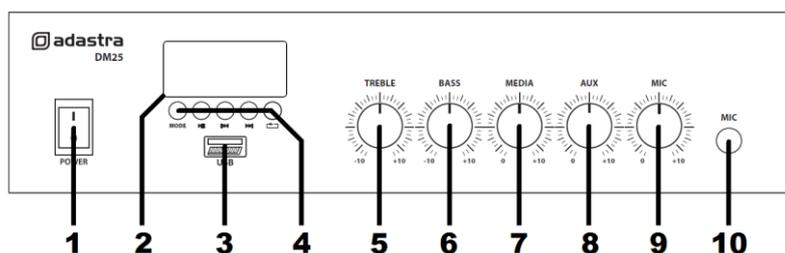
Placement

- Keep out of direct sunlight and away from heat sources
- Keep away from damp or dusty environments
- For rack-mounting, use an appropriate shelf unit (e.g. 853.055UK) and ensure adequate support
- Ensure adequate air-flow and do not cover cooling vents at the front and rear of the amplifier
- Ensure adequate access to controls and connections

Cleaning

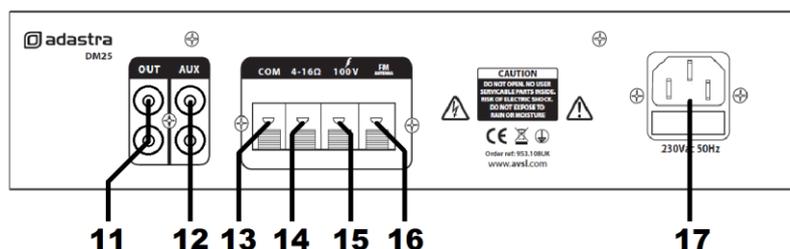
- Use a soft cloth with a neutral detergent to clean the casing as required
- Use a vacuum cleaner to clear ventilation grilles of any dust or debris build-ups
- Do not use strong solvents for cleaning the unit

Front panel



1. Power on/off switch
2. Media player display
3. USB media port
4. Media player mode & transport controls
5. Treble EQ
6. Bass EQ
7. Media player level
8. Auxiliary input level
9. Microphone level
10. Microphone input jack

Rear panel



11. Aux output connectors (RCA)
12. Aux input connectors (RCA)
13. COM speaker terminal
14. 4-16Ω speaker terminal
15. 100V speaker terminal
16. FM antenna connection
17. IEC mains inlet & fuse holder

Connection and setup

Connect the rear IEC inlet (17) to the mains using the supplied mains lead (or an equivalent approved type). Ensure that the mains voltage is correct and that the mains outlet is switched on.

Connect any line level audio inputs to the Aux input (12) on the rear panel using RCA leads.

Connect a microphone (if required) to the front panel jack input (10). Further amplifiers can be connected from the rear Out RCA sockets (11).

The DM25 can be used either with 100V line or standard low impedance speakers. Speaker connections are provided as spring terminals on the rear panel (13, 14, 15)

Next to the speaker connections is a spring terminal for FM Antenna (16) This should be connected to the core of an antenna cable for good FM radio reception (if required)

NOTE: Do not connect a speaker output to the antenna by mistake. This may carry high voltage.

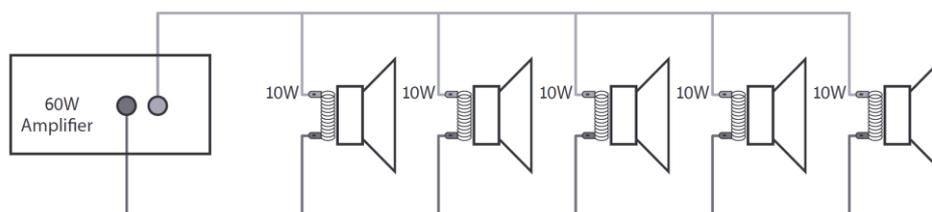
These 2 configurations cannot be used together, so it is important to decide which method will be used at the start.

100V line systems

For 100V line systems, connect the amplifier to the first speaker in the system using double-insulated speaker wire which has adequate current rating to handle the total output of the DM25.

Connect the "100V" (15) output terminal to the positive (+) connection of the speaker and "COM" output (13) to the negative (-) connection of the speaker.

Connect further speakers in parallel to the first speaker with all positive terminals and connected together and all negative terminals connected together as shown below.



A 100V line speaker system can comprise of many speakers connected together. The determining factor for how many speakers can be used on a single amplifier is the power rating. For most purposes, it is advised to connect as many speakers as needed with a combined wattage of no more than 90% of the amplifier's output power rating.

The terminals of a 100V speaker are connected to a transformer and in some cases, this transformer may be "tapped" for different power ratings. These tapings can be used to adjust the wattage (and output volume) of each speaker in the system to help achieve the ideal total power of the system.

Low impedance systems

The DM25 amplifier can provide a mono output to drive low impedance speakers by connecting the "4-16Ω" output (14) to the positive (+) speaker terminal and "COM" output (13) to the negative (-) speaker terminal.

More than one speaker can be connected in parallel (similar to 100V speaker connection) but it is important to ensure that the total speaker load is no less than 4Ω and that the power handling of the speakers is equal to or greater than the shared output power of the amplifier.

Operation

When all connections to the amplifier are made, turn all rotary controls down and switch on the power (1). Ensure a signal is being fed to the Aux input connection and gradually increase the Aux rotary control (8) part way for checking.

Alternatively, connect a microphone to the Mic input (10) and gradually increase the Mic volume (9) for checking. The microphone should not be able to "hear" the speakers, which can cause feedback (squealing or howling noise).

Note: If a mic or line input is not connected to the DM25, the initial test can be made using the built-in media player. See section below for instructions.

Media Player

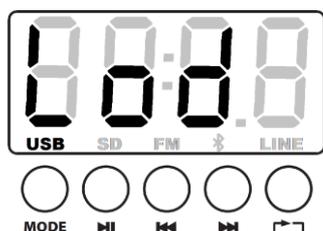
The DM25 is equipped with a built-in digital audio player which has 3 main modes.

Pressing the MODE button selects through Bluetooth, USB and FM tuner.

Output from this media player is governed by the Media level control (7) on the front panel and also by pressing and holding the Previous or Next buttons.

Navigation for all 3 modes is provided by buttons beneath the LED display.

USB mp3 Audio Playback



MODE	Input source selector - USB / FM / Bluetooth
▶	Play / Pause track
◀◀	Previous track or hold for volume decrease
▶▶	Next track or hold for volume increase
↻	Repeat mode setting (ALL or ONE)

Push the USB pen drive into the USB port (3) and the display will show "Lod" to show that it is loading the media. Audio files will start to play automatically.

Turn up the Media level control (7) gradually to hear the output from the speakers and increase to the required level.

If play does not start automatically, press the MODE button and/or Play/Pause button to check if the player is set to play from the required memory device.

Try Previous track and Next track buttons if the selected track is unable to play. Otherwise, check that the audio files are standard mp3 type.

Normal playback will read through all tracks on the storage device. Press the Repeat button once to continually repeat ALL tracks in the device, press Repeat again to repeat just the ONE current track.

Pressing the Previous track button briefly steps backwards through tracks on the memory device. Press and hold this button to decrease the playback volume.

Pressing the Next track button briefly steps forwards through tracks on the memory device. Press and hold this button to increase the playback volume.

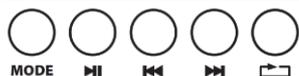
To pause the current track, press the Play/Pause button and press it again to resume playback.

The LED digital display will show the track number when a track is selected and then the elapsed time when it is playing.

Bluetooth Mode



Pressing the mode button until the display shows "bLUE" enters Bluetooth receiver mode.



On a smart phone or other Bluetooth enabled device, scan for available devices and the DM25 will be represented with the Bluetooth ID "MP3A".

Select to pair with this device and once successful, wireless audio playback should be enabled through the media player of the DM25. If this does not happen, check that there are not more than 1 available devices with the ID "MP3A" and ensure that the volume is turned up on the sending device.

Once paired, the smartphone or other device should connect automatically when in range of the DM25 and when Bluetooth is enabled.

FM tuner



Pressing the mode button until "FM" appears in the lower part of the display enters FM tuner mode.



The display will show the current radio frequency in MHz.

Note: reception will be considerably better if an FM antenna is connected on the rear panel.

Press Play/Pause to initiate the auto-tune process, which will scan for the 10 strongest frequencies and store them automatically as P01 – P10.

These stored stations can then be navigated using the Previous and Next navigation buttons. The Program number will be displayed, followed shortly by the tuning frequency.

Before powering down, turn down the level controls. To avoid loud pops through the speakers.

Specifications

Power supply	230Vac, 50Hz (IEC)
Output power	25Wrms
Audio source	USB player, FM tuner and Bluetooth receiver
Bluetooth version	2.1
Controls	Treble, Bass, MP3, Aux, Mic
Microphone input	6.3mm jack (unbalanced)
Line input	2 x RCA (summed to mono)
Line output	2 x RCA
Speaker outputs	COM, 100V and 4-16 Ohms (spring terminals)
Antenna connection	Spring terminal
Dimensions	280 x 205 x 67mm
Weight	1.34kg

Troubleshooting

No output or LED display	Ensure IEC lead is in good condition and connected properly
	Check mains inlet fuse
	Ensure POWER switch is on
LED display is lit but no output	Check input signals and condition of input connection leads
	Check level controls are turned up
	Check file type on USB or connection via Bluetooth is OK
	Check speaker output terminals are connected correctly
	Check speakers are working (test on another amp if available)
USB player will not play audio from media	Press PLAY on transport controls
	Check memory device is connected properly (remove and re-insert)
	Check file types – standard mp3 files are required
	Check memory device works on a PC or Mac for standard playback
No connection via Bluetooth	Check that the sending device is connected to the correct "MP3A" ID
	Check the volume output level of the sending device
Output is very loud or distorted	Check level of input signal is not too high
	Reduce MIC, LINE IN, USB/SD and/or MASTER level
	Ensure Hi-Z line level input(s) not connected via MIC input
Output is working but at very low level	Check input audio source level is not too low
	Increase MIC, LINE IN, USB/SD and/or MASTER level
	Check for quiet recording of media files on USB
Feedback from microphone	Face microphone away from speakers and monitors
	Turn down MIC and/or MASTER level
Amplifier overheating	Ensure cooling vents are clear from debris and dust
	Check that 4Ω or 8Ω speakers are not connected to 100V terminals
	Ensure total 100V speaker wattage is lower than amplifier rating
	Ensure that 100V and 8Ω speakers are not both connected
	Ensure that total load connected to 8Ω output is not less than 8Ω



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.

*Errors and omissions excepted.
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