DMA2240 / DMA2500

2x240W / 2x500W Digital Multimedia Mixer Amplifier

DMA30W Remote Control Panel

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Description

The DMA2240 / DMA2500 2x240W / 2x500W Digital Multimedia Mixer Amplifier is engineered for applications such as mosque sound systems and other multi-zone public address environments. It is also suitable for fitness centers, meeting rooms, and small commercial installations.

When integrated with the DMA30N remote bus network decoding terminal, the system operates over a shared RJ45 audio and data bus, enabling seamless communication with the DMA30W remote control panel for centralized and distributed control.

Features

- User-friendly front panel with rotary controls, push buttons, and rocker-type power switch.
- Dual-channel amplifier design with independent configuration per channel via DIP switches.
- Supports multiple output modes: 100V / 70V constant voltage and 4Ω / 8Ω low impedance, with full rated power available in all modes.
- Six balanced audio input channels, each with independent gain adjustment and dedicated 48V phantom power control via DIP switches.
- Dual RCA AUX inputs (AUX2), assignable to CH1 and CH2 with separate level control.
- 3.5mm stereo input with independent level adjustment for both CH1/CH2 output channels.
- Two RCA AMP IN inputs for external amplifier signal input, internally linked to PRE OUT by default.
- Two RCA PRE OUT outputs for preamplifier signal output, controlled by CH1/CH2 master levels; 1V output in 100V mode.
- Priority input configuration available for MIC1 and 3.5mm input, with automatic signal mixing in all

operating modes.

- Dual RCA AUX OUT1–2 outputs providing fixed-level audio signals, independent of channel volume and system output level.
- RJ45 interface supporting up to six DMA30W remote control panels for system operation, including CH1/CH2 volume adjustment, zone on/off control, and EFFECT switching.
- Built-in digital reverb effect with adjustable depth and decay time: 3 preset modes + 1 custom mode, room size settings (Large / Medium / Small / Off), independent effect enable/disable for MIC5–MIC6 and zone outputs (Indoor/Outdoor).
- 3-band EQ for MIC1–MIC6 inputs: LOW (80Hz ±12dB), MID (2.5kHz ±12dB), HIGH (10kHz ±12dB).
- Automatic standby mode configurable via DIP switch: automatic sleep after 10 minutes of no signal, sleep indicator flashing during standby, automatic wake-up on signal detection.
- RJ45 connection supports one DMA30N network decoding terminal: audio + data bus transmission, network decoding playback, offline scheduled playback, EMC dry-contact output, network AUX output functionality.

Specifications

Model		DMA2240	DMA2500
Line Input	AUX1 Input Sensitivity	250±25mV	
	AUX2 Input Sensitivity	250±25mV	
	AMP IN (CH1-2)	1±0.1mV	
	COM1-2	±3V±0.2V	
	Frequency Range	80–16kHz (±3dB)	
Microphone Input	MIC1-6 Max. Input Sensitivity	5±1mV (potentiometer fully clockwise)	
	MIC1-6 Min. Input Sensitivity	250±25mV (potentiometer fully clockwise)	
	Frequency Response	100–10kHz (±3dB)	
	Phantom Power	48±5V	
Line Output (CH1-2)	BUS OUT Line Output	1±0.1mV	
	REC OUT Line Output	1±0.1mV	
	PRE OUT Line Output	1±0.1mV (100V constant-voltage mode)	
Signal-to-Noise Ratio		≥76dB (all volumes at max)	
Noise		≤8.5mV (all volumes at max)	
Total Harmonic Distortion		≤1%	
Gross Weight		8.8kg	
Net Weight		6.3kg	
Package Dimensions (L×W×H)		585×535×155mm	
Product Dimensions (L×W×H)		483×380×88mm	

Model	DMA30W
Package Dimensions (L×W×H)	144×121×91mm
Product Dimensions (L×W×H)	86×86×38mm
Net Weight	0.2kg
Gross Weight	0.1kg

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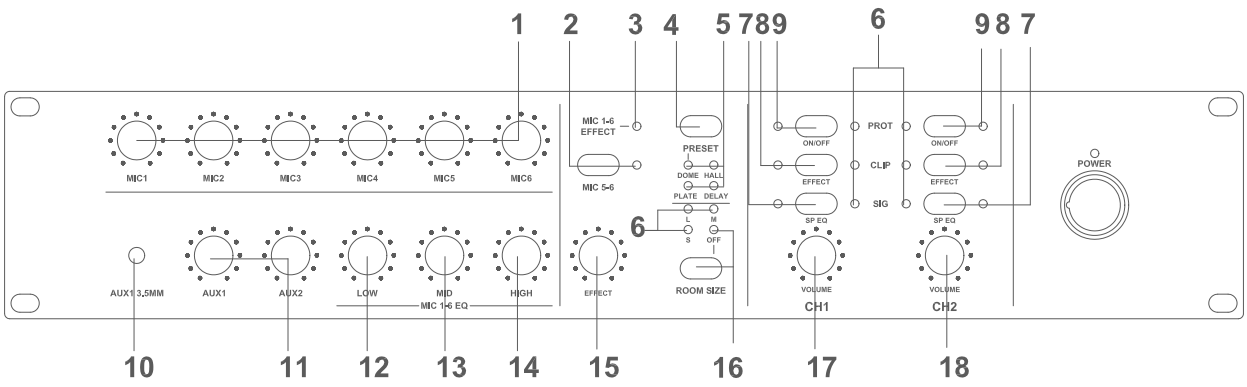
DMA2240 DMA2500 2x240W 2x500W Digital Multimedia Mixer Amplifier



1. MIC1-6 Volume Control Knobs

2. MIC5-6 Reverb ON/OFF Button

Press to enable the reverb effect for MIC5-6 (LED lights green). Press again to disable the effect (LED turns off).

3. MIC1-6 Reverb ON/OFF Indicator LED

4. PRESET: Reverb Mode Button

Press to cycle through the microphone input reverb modes. Four preset modes are available: DOME, HALL, PLATE, and DELAY.

5. Reverb Mode Indicator LEDs

DOME, HALL, PLATE, DELAY LEDs light green when the corresponding mode is active. Preset reverb times: DOME: 400ms, HALL: 300ms, PLATE: 150ms.

Note: DELAY mode enters custom mode for further adjustment.

6. Custom Reverb Delay Settings (DELAY Mode)

L: Reverb delay 500ms

M: Reverb delay 200ms

S: Reverb delay 100ms

7. SP EQ Indicator LED

Lights green when active. (Customizable frequency response: Can be adjusted via software according to customer requirements, which requires USB upgrade. Default presets: CH1: 80Hz–20kHz, CH2: 200Hz–6kHz.)

8. EFFECT Channel Reverb Switch

Press to enable reverb effect on the corresponding amplifier channel (LED lights green). The output includes preset reverb when microphone input is active. Press again to disable (LED turns off).

9. ON/OFF Channel Switch Button

Press to turn the corresponding amplifier channel ON; press again to turn it OFF. The LED indicates channel status.

10. AUX1 3.5mm Audio Input

11. AUX1/AUX2 Volume Control Knobs

12. Bass Volume Control Knob

13. Midrange Volume Control Knob

14. Treble Volume Control Knob

15. Mix Volume Control Knob

16. ROOM SIZE: Reverb ON/OFF Button

After selecting the DELAY reverb mode, the amplifier enters custom mode. Press the ROOM SIZE button once to enable the reverb effect (LED lights yellow). Rotate the button clockwise to select one of the three settings: L, M, or S. Switching to “OFF” disables the reverb effect, and the MIC1-6 EFFECT indicator LEDs will turn off. Note: Each reverb setting has a corresponding indicator LED, which lights up when that effect is selected.

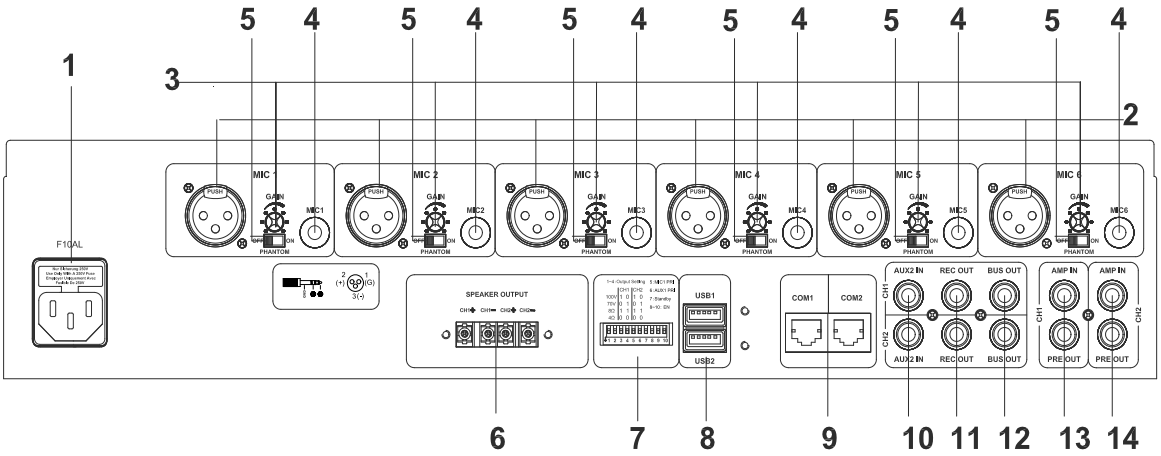
17. CH1 Volume Control Knob

Corresponds to the CH1 volume "  "/"  " buttons on the DMA30W remote control panel. Rotating the knob clockwise ("  ") increases the volume, rotating it counterclockwise ("  ") decreases the volume.

18. CH2 Volume Control Knob

Corresponds to the CH2 volume "  "/"  " buttons on the DMA30W remote control panel. Rotating the knob clockwise ("  ") increases the volume, rotating it counterclockwise ("  ") decreases the volume.

19. Power Switch



1. Power Input Socket

2. MIC1–MIC6 Balanced XLR Inputs

3. Microphone Gain Control

4. MIC1–MIC6 Unbalanced 6.3mm Inputs

5. MIC1–MIC6 Phantom Power Selection Switches

Slide the switch left or right to select. (Note: Reduce the device volume or turn off the power before operating this switch.)

6. Two-Channel Speaker Output Terminals

7. DIP Switches

- Switch Up = “1”; Switch Down = “0”.
- Switches 1–4: Amplifier Mode Selection.
  100V: 1 0 1 0
  70V: 0 1 0 1

8Ω: 1 1 1 1
4Ω: 0 0 0 0

- Switches 5–6: Priority Settings for AUX1 and MIC1.
  Priority: NET > MIC1 > MIC2–5 = AUX1–2: 1 0
  Priority: NET > AUX1 > MIC1–5 = AUX2: 0 1
  Priority: NET > AUX1 = MIC1 > MIC2–5 = AUX2: 1 1
  Priority: NET > MIC1–5 = AUX1–2: 0 0
- Switch 7: Standby Mode. Switch up to enable standby. Note: The amplifier enters standby approximately 10 minutes after no signal is detected, indicated by a flashing POWER LED. Wake-up from standby requires 3-5 seconds of signal input.
- Switches 8–10: Reserved. Currently not in use.

8. USB Service Port. These ports are used for firmware upgrades and are normally covered by a panel.

9. COM1/COM2 Interfaces

Connect to DMA30W remote control panels and DMA30N remote bus network decoding terminal for power supply and communication. DMA30N also provides audio input.

10. CH1/CH2 Line Input Ports

Connect external audio sources.

11. CH1/CH2 Recording Line Output Ports

Connect external recording devices, amplifiers, or other equipment.

12. CH1/CH2 Line Output Ports

Connect external amplifiers or other devices.

13. AMP IN / PRE OUT Ports (CH1)

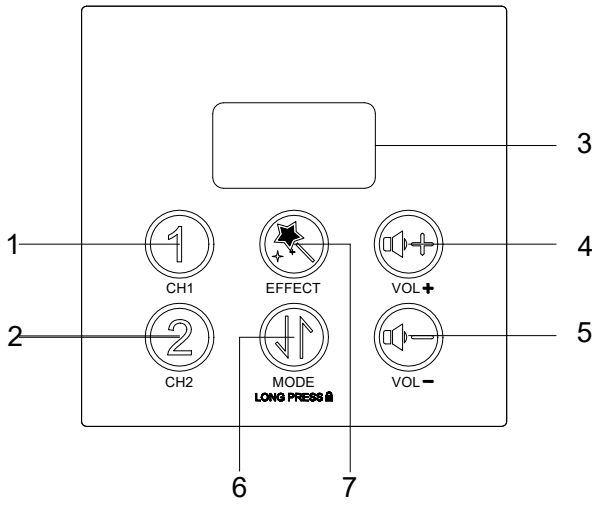
14. AMP IN / PRE OUT Ports (CH2)

AMP IN is the line input to the internal amplifier module. PRE OUT is the line output for audio sources. When connecting external audio processing equipment, the PRE OUT signal is processed and then input to AMP IN. Ensure the AMP IN signal does not exceed 1 Vrms, or use a voltage limiter to prevent severe clipping or amplifier damage.

Normally, AMP IN and PRE OUT are connected via RCA shorting terminals to allow preamplifier signals to enter the power amplifier stage.

Note: The PRE OUT output level varies with different amplifier output modes. Using external audio processing equipment via AMP IN / PRE OUT is only recommended in 100V constant-voltage output mode. For other modes, please consult the manufacturer's technical support.

DMA30W Remote Control Panel



1. CH1 Channel ON/OFF Button

Corresponds to the Channel 1 “ON/OFF” button on the DMA2240/DMA2500 main unit. When the LED is lit, the channel is on; when the LED is off, the channel is off. The LED will blink if communication fails.

2. CH2 Channel ON/OFF Button

Corresponds to the Channel 2 “ON/OFF” button on the DMA2240/DMA2500 main unit. When the LED is lit, the channel is on; when the LED is off, the channel is off. The LED will blink if the network is disconnected.

3. Display Screen

Powered by the two-channel digital mixer amplifier. When the amplifier power is turned on, the DMA30W display shows: communication status, channel information, channel reverb on/off status, and main volume level. **Note: Other display interfaces vary depending on button operations; refer to the function descriptions for details. Display auto-standby time ≤ 5 minutes.**

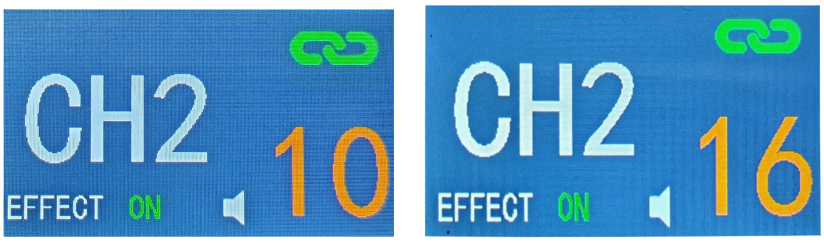
Online Status Interface

Offline Status Interface

Note: Maximum single network cable length is 300 meters.

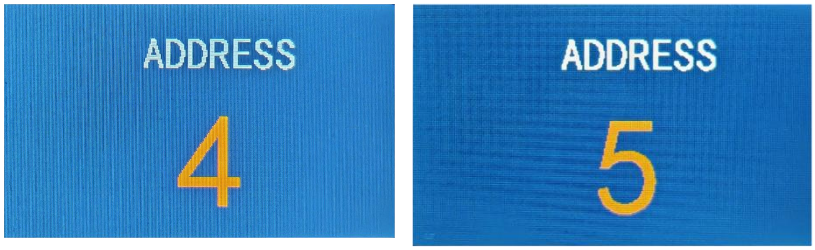
4. Increase Button

- Corresponds to the CH1/CH2 Volume Increase Knob on the DMA2240/DMA2500 main unit. On the main interface, press this button to increase the volume value.



Volume Increase Interface

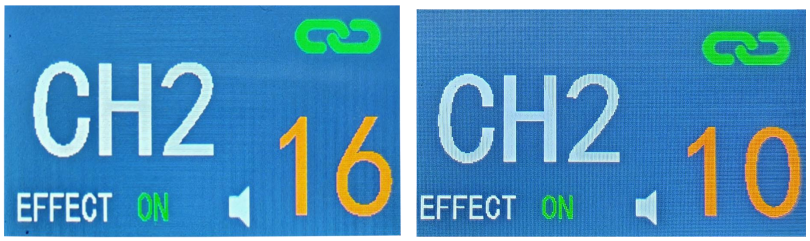
- On the main interface, long press the EFFECT button to enter the zone address setting interface. Then, short press this button to increase the zone address value.



Zone Address Increase Interface

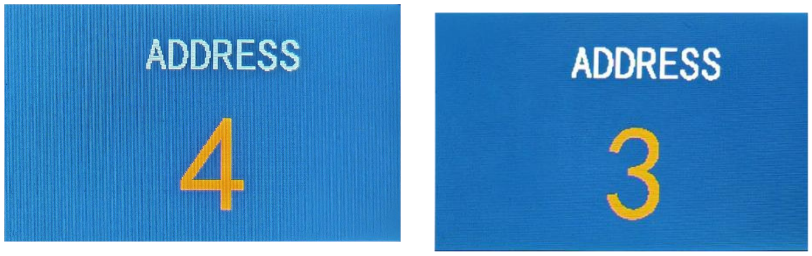
5. Decrease Button

- Corresponds to the CH1/CH2 Volume Decrease Knob on the DMA2240/DMA2500 main unit. When the main interface is displayed, pressing this button decreases the volume value.



Volume Decrease Interface

- On the main interface, long press the EFFECT button to enter the zone address setting interface. Then, short press this button to decrease the zone address value.



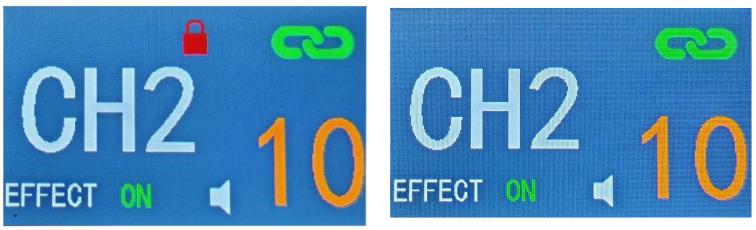
Zone Address Decrease Interface

6. Channel Mode Selection Button (MODE)

- On the main interface, short press this button to switch between CH1 and CH2.

CH1/CH2 Channel Switching Interface

- On the main interface, long press this button to enable lock function; press it again to disable.



Lock Interface **Unlock Interface**

7. Channel Reverb ON/OFF Button (EFFECT)

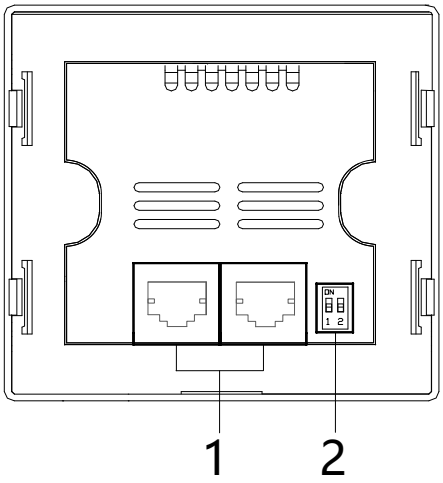
- Corresponds to the EFFECT button on the DMA2240/DMA2500 main unit. On the main interface, short press this button to turn reverb mode on/off.

Reverb Mode On Interface

Reverb Mode Off Interface

- On the main interface, long press this button to enter zone address setting interface; long press it again to save and exit.

Zone Address Setting Interface



1. Network Interfaces

Dual RJ45 remote communication ports, supporting daisy-chain connection. Up to six remote control panels can be connected in series.

2. DIP Switches

- **Switch 1: Used to enable the end-of-line termination resistor. Switch down to enable.**
- **Switch 2: Reserved (no function).**