DMA2240/DMA2500 DMA30W

Two-Channel Digital Mixer Amplifier & Remote Control Panel

DMA2240/DMA2500
Two-Channel Digital Mixer Amplifier

DMA30W
Remote Control Panel

Description

The Two-Channel Digital Mixer Amplifier is specially optimized for mosque applications, while also suitable for gyms, conference rooms, small shopping centers, and traditional public address scenarios. When used with the DMA30N Remote Bus Network Decoding Terminal, it shares an RJ45 audio and data bus with the DMA30W Remote Control Panel.

Features

● Mechanical knobs and push-button design, with a rocker-type power switch.
● Two-channel amplifier; each channel can be individually configured via DIP switches to support 100V constant-voltage output, 70V constant-voltage output, 8Ω fixed-resistance output, or 4Ω fixed-resistance output. Rated power can be delivered in any mode.
● Six balanced input channels, each with independent volume control; each channel has a separate DIP switch for 48V phantom power.
● One set of RCA AUX2 inputs, split into CH1 and CH2, with independent volume control.
● One 3.5mm stereo input, with independent volume control for CH1 and CH2.
● Two RCA AMP IN1-2 inputs for amplifier input, by default connected to PRE OUT1-2.
● Two RCA PRE OUT1-2 outputs for preamplifier output, controlled by CH1 and CH2 volume; outputs 1V only in 100V constant-voltage mode.
● 3.5mm stereo input and MIC1 can be configured as priority inputs; in any mode, these two inputs are mixed together.
● Two RCA AUX2 OUT1-2 outputs for audio sources, not controlled by CH1/CH2 volume or maximum output level.
● RJ45 interface supports DMA30W remote touch control panels, up to six units; allows control of CH1/CH2 volume, zone on/off, and EFFECT on/off.
● Supports EFFECT (reverb) depth adjustment and reverb time with three preset modes and one custom

mode. In custom mode, the ROOM SIZE option has L, M, S, OFF. MIC5-6 can enable or disable EFFECT. OUTSIDE and ROOM zones can independently enable or disable EFFECT.

- MIC1-6 have EQ adjustment, divided into LOW (80Hz ±12dB), MID (2.5kHz ±12dB), and HIGH (10kHz ±12dB).
- Standby function: can be enabled via DIP switch; enters standby after 10 minutes of no signal, with the SLEEP indicator flashing; resumes normal operation upon signal detection.
- Supports connection of one DMA30N Remote Bus Network Decoding Terminal via RJ45 for audio and data bus power, enabling network decoding, offline scheduled playback, EMC dry-contact output, and network AUX OUT 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

DMA2240 DMA2500 Two-Channel Digital Mixer Amplifier
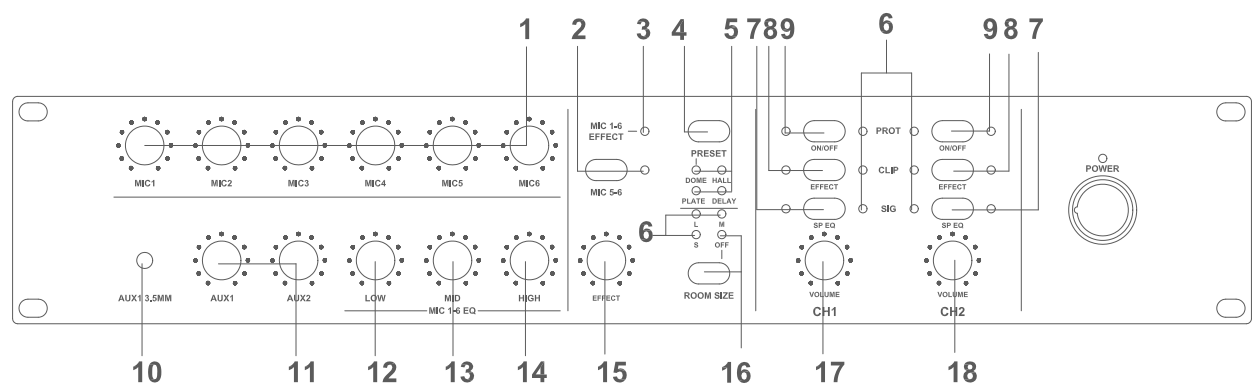
1. MIC1-6 Volume Control Knobs

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
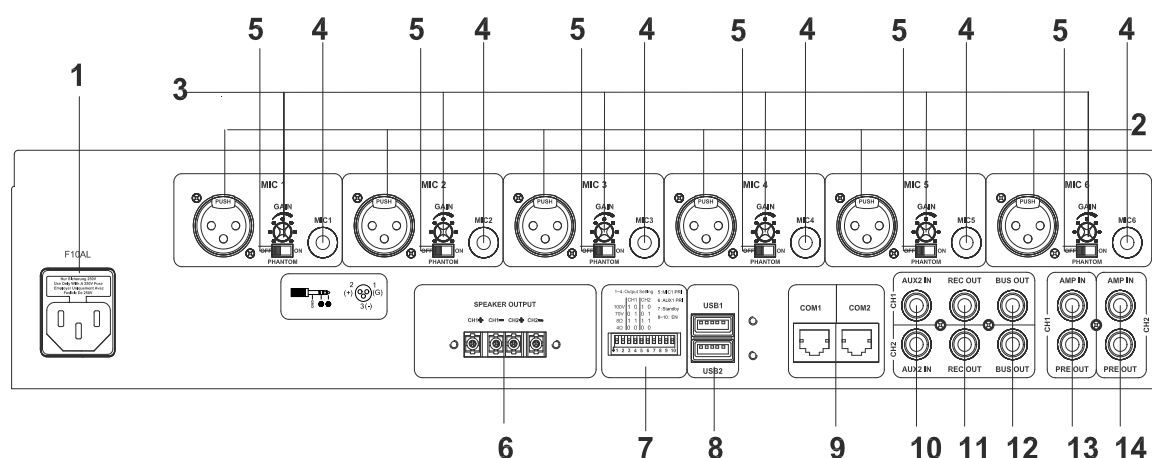
1. Power Input Socket

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
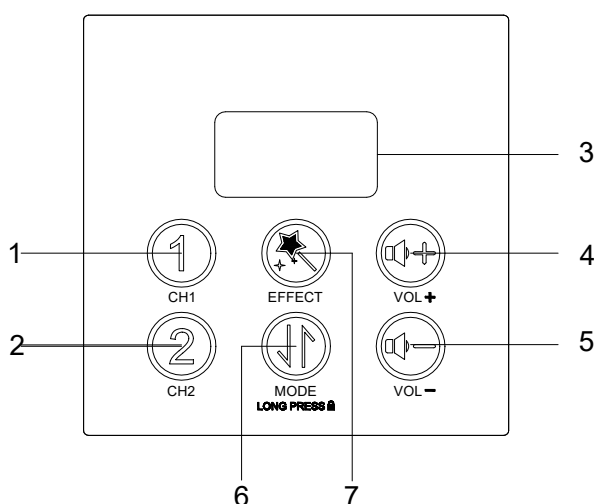
1. CH1 Channel ON/OFF Button

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.**
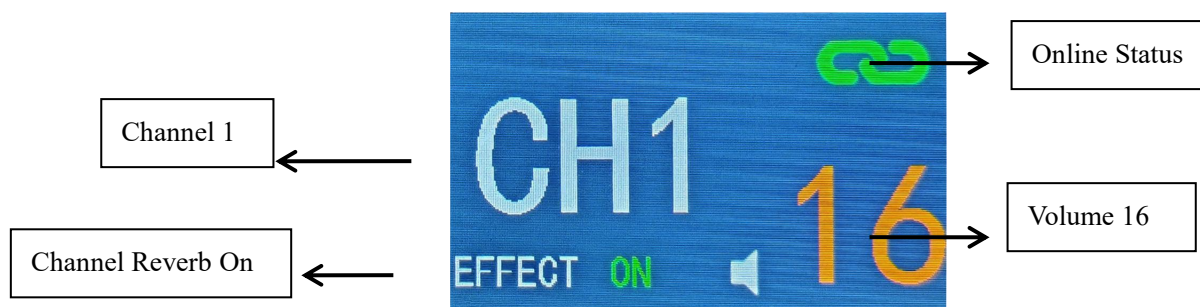
Online Status Interface

Offline Status Interface

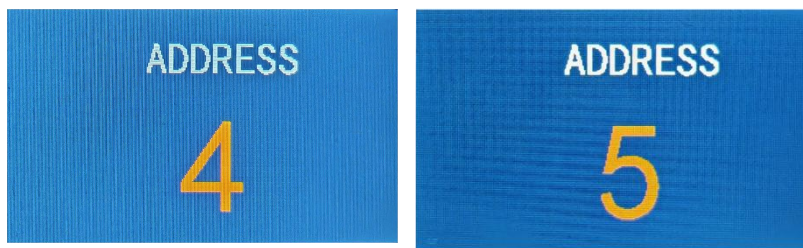**Note: Maximum single network cable length is 300 meters.**

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.
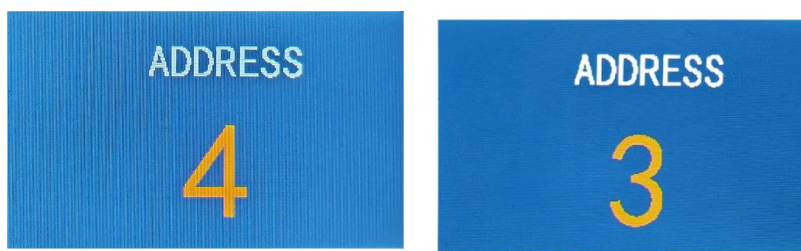
Zone Address Increase Interface

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.
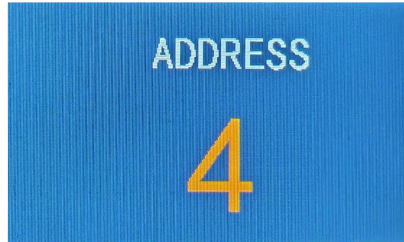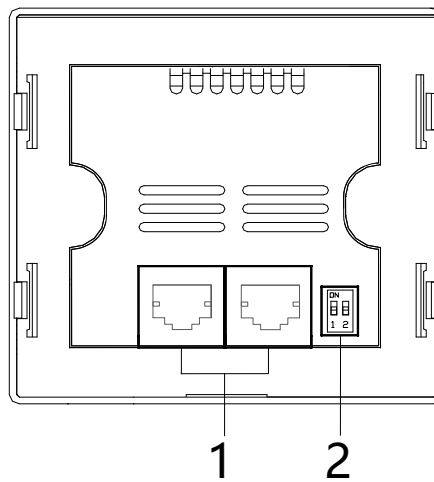
Reverb Mode On Interface   **Reverb Mode Off Interface**

■ 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).**

The specifications will be subject to change without prior notice.