

# DMX-66

Digital Mixer with 6 mic/line inputs and 6 outputs



## User Guide

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## Introduction

Thank you for choosing the 6-channel digital mixer DMX-66 from AVE.

No matter what your requirements are, due to its advanced technical design, it ensures trouble-free use with sound exposure in a variety of facilities such as churches, courtrooms, government offices, conference rooms, schools, universities, etc.

The DMX-66 is equipped with its own software and offers users a wide range of practical functions.

### **Streaming Media Server:**

DMX-66 is a live audio streamer.

It records audio from an input/output channel, encodes it and sends it to a streaming server.

DMX-66 can do live streaming, so people can hear your video while it is being recorded.

It can be used to create an internet radio station or a privately running jukebox and many things in between.

It is very versatile in that new formats can be added relatively easily.

DMX-66 supports open standards for communication and interaction.

DMX-66 supports TCP/IP, UDP, RTSP and RTMP streaming protocols.

## Safety Instructions

**Located inside the unit are hazardous voltages. Do not remove the cover. Internal modifications or service work should only be conducted by qualified service personnel.**

The DMX-66 comes with an approved power cable. At one end of this cable is a three-pronged AC power connector (IEC plug) and at the other end of a CE-standard-compliant Schuko-plug for connection to a 230 V / 50 Hz AC voltage source. Please ensure that this power supply cable is not damaged. Do not use defective or damaged power cables!

## Scope of delivery

Please check immediately upon receipt the package integrity, the contents for completeness and proper delivery of the unit.

The delivery scope of the unit includes:

- The DMX-66
- Power supply cable
- Cat 5 cable

Please keep the operating instructions in a safe place and make them available to qualified personnel for making necessary changes to the device.

# Operation of the DMX-66

## Input Level 1 – 6

By turning the volume control the volume will be increased or decreased.  
 Input 6 is switchable to CD/USB or Micro/Line.

## Control of the master volume

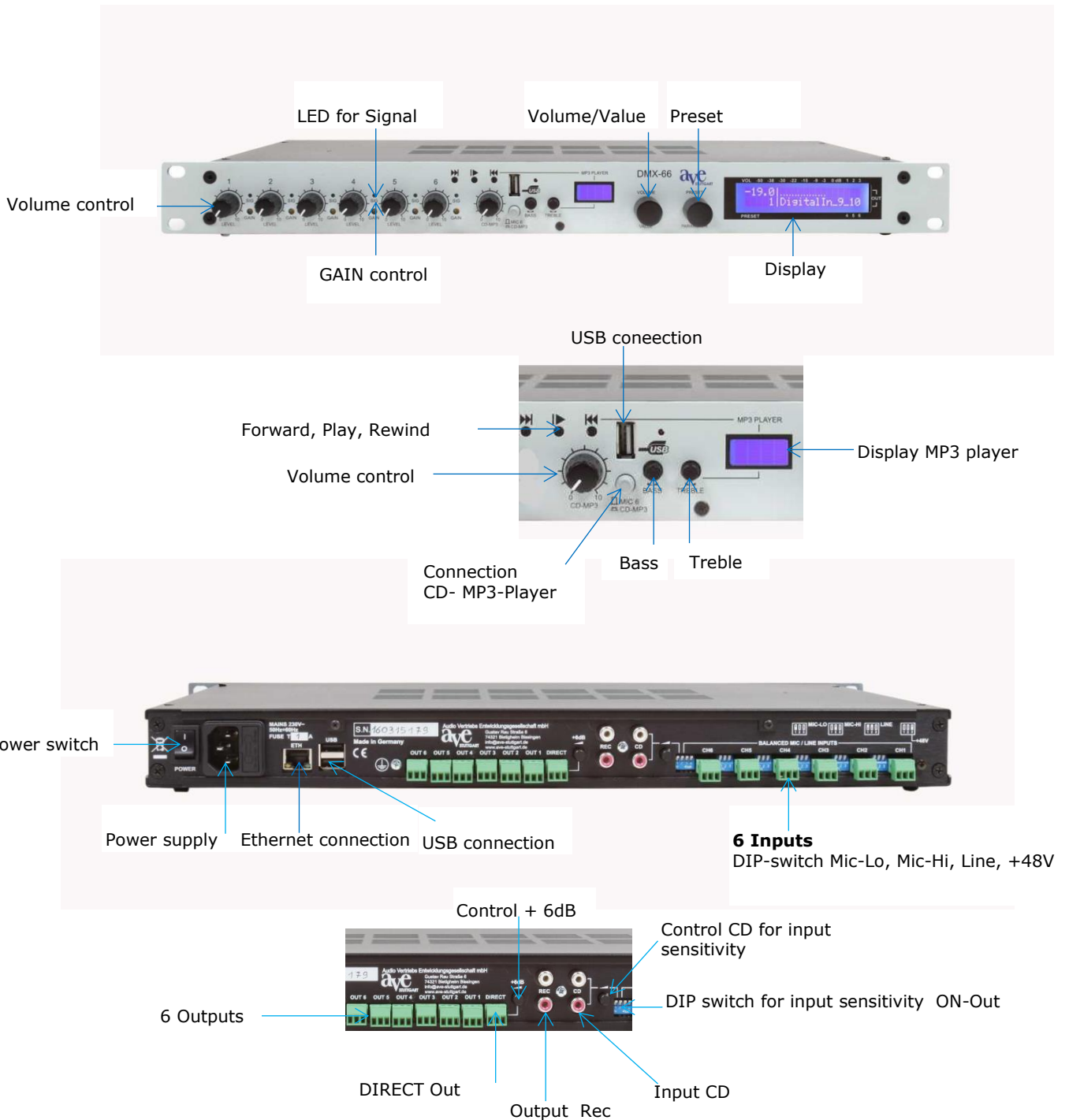
By turning the volume/value control the master volume will be increased or decreased

## Select Preset

By turning the preset control the desired preset is selected.

## Note

The volume control in "user mode" is restricted in order to prevent operating errors. If the protection is activated, the volume and preset selection is adjusted by pressing and then turning.



## Technical specifications

### Analog inputs

Number of balanced inputs	6 (Phoenix 3.5 mm connector)
Number of unbalanced inputs	1 (RCA connector)
Analog gain (manually adjustable)	0 dB - 30 dB
Nominal sensitivity (balanced input) MIV-HI	-58 dBu (1mV <sub>rms</sub> )
Nominal sensitivity (balanced input) MIV-LO	-34 dBu (15mV <sub>rms</sub> )
Nominal sensitivity (balanced input) MIV-HI	-19 dBu (87mV <sub>rms</sub> )
Phantom power (Activating at DIP-Switch)	+48 Volt stabilized, very low noise
Balanced input impedance (Phoenix)	5 kΩ @ 1 kHz
Unbalanced input impedance (RCA)	33 kΩ @ 1 kHz
Balanced input CMRR	<60 dB @ 1 kHz
On Mic (20 Hz - 20 kHz weighted) R <sub>s</sub> =150 Ohm	-126 dBV
Frequency response MIC (-3dB)	160 Hz to 20 kHz
Frequency response LINE (-3dB)	40 Hz to 20 kHz
Input protections	Radio frequency interference (RFI) Transient voltage spikes External overvoltage

### Analog outputs

Number of balanced outputs	6 + 1 (Phoenix 3.5 mm connector)
Number of unbalanced outputs	1 (RCA connector)
Dynamik range	120 dB ("A" weighted)
Residual noise of output driver	-100 dBu (20 Hz ÷ 20 kHz)
Nominal level (balanced output)	0 dBu (7.75 V <sub>rms</sub> )
Maximum level (balanced output)	20 dBu (7.75 V <sub>rms</sub> )
Balanced output impedance	140 Ω
Unbalanced output impedance	70 Ω
Ausgangsschutz	Short circuits Overvoltage protection

### Analog to digital converter

Bit resolution	24-bit
Converter type	Sigma delta
sampling frequency (F <sub>s</sub> )	48 kHz
Signal to noise ratio (SNR)	104 dB ("A" weighted @ 48 kHz)
Dynamic range	104 dB (-60 dB <sub>Fs</sub> )
Total harmonic distortion (THD)	-93 dB (1 kHz, -1 dB <sub>Fs</sub> )
Oversampling factor	512 F <sub>s</sub>

### Digital Signal Processor

DSP	32-bit / 40-bit, Floating point 150 MHz – 6.6 ns cycling rate Super Harvard Architecture 900 MFLOPS 1Mbits SRAM, two-channel
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### Digital to analog converter

Bit resolution	24-bit
Converter type	Sigma delta
Sampling frequency (F <sub>s</sub> )	48 kHz
Signal to noise ratio (SNR)	112 dB ("A" weighted @ 48 kHz)
Dynamic range	112 dB (-60 dB <sub>Fs</sub> )

Total harmonic distortion (THD)	-94 dB (1 kHz, 0 dB <sub>FS</sub> )
Delay time	0,58 ms
Oversampling factor	512 Fs

## Digital Processing

### Input

Highpass/lowpass filter (anti hum, anti rumble and more )	Butterworth filter type with adjustable cutting frequency and selectable slope 12/24/48 dB/Octave
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5 parametric equalizuer PEQ	Frequency [20 Hz ÷ 20 kHz] Gain [-15 dB ÷ 15 dB] Bandwidth [0,01 ÷ 6 oct]
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Noise Gate	Threshold [-80 dB <sub>FS</sub> ÷ 0 dB <sub>FS</sub> ] Hold time [100 ms ÷ 10 s]
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Automix function	Hold time [100 ms ÷ 5000 ms] Attenuation [-60 dB ÷ 0 dB] NOM Gain (Increase post gain of -3dB for each doubling of opened automix channels) Max. opened channels [1 ÷ 6]
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Volume control	[-100 dB ÷ 10 dB]
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### Routing Matrix:

Matrix size	6 inputs / 6 outputs
Matix crosspoint level adjusting	[-60 dB ÷ 10 dB]

### Audio output

Easy adjustment of the sound columns	AT-N series and Live SM series
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31 bands graphic equalizer	Gain [-12 dB ÷ 12 dB]
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Dynamic compressor range	Threshold [-90 dB <sub>FS</sub> ÷ 20 dB <sub>FS</sub> ] Ratio [R=1:1 ÷ R=20:1] Post Gain [-20 dB ÷ 20 dB] Attack Time [1 ms ÷ 250 ms] Release Time [10 ms ÷ 2500 ms]
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Limiter	Threshold fixed at 0 dB <sub>FS</sub>
Delay	[0 m ÷ 35 m], [0 ms ÷ 100 ms]
Phase control	[0°, 180°]
Output level	[-100 dB ÷ 10 dB]
Master level	[-100 dB ÷ 10 dB]

## Data connections

Rear panel

ETHERNET 802.3

Wi-Fi 802.11

USB 2.0

## Display

LCD

20 characters x 2 lines

## PSU Module

AC range

230 VAC  $\pm$  10%

Input frequency

47 Hz to 67 Hz

Power consumption

max. 33 W

Analog voltages

+48 VDC,  $\pm$ 15 VDC, +5 VDC

Digital voltages

+3,3 VDC, +1,2 VDC

Voltage regulators

linear type (no switching noise)

## Dimensions and weight

Height

44 mm

Width

484mm

Depth

230 mm + 60 mm connector

Weight

3.6 kg

## Temperature range

Indoor

0°C to 40°C (32°F bis 102°F)

## Certifications

AES48-2005 grounding scheme

2002/95/EC

CE

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Consulting • Planning • Developing • Assembly of electroacoustic sound systems  
AVE GmbH • Gustav-Rau-Straße 6 • 74321 Bietigheim-Bissingen • Germany  
Phone +49 (0)7142 78879-0 • Fax +49 (0)7142 78879-18  
[info@ave-stuttgart.de](mailto:info@ave-stuttgart.de) • [www.ave-stuttgart.de](http://www.ave-stuttgart.de)