

DMV-96

Digital automatic mixing amplifier
with 8 mic/line inputs and 6 outputs



User guide

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Introduction

Thank you for choosing the 6-channel digital mixer DMV-96 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 DMV-96 is equipped with its own software and offers users a wide range of practical functions.

Streaming Media Server:

DMV-96 is a live audio streamer..

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

DMV-96 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.

DMV-96 supports open standards for communication and interaction.

DMV-96 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 DMV-96 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 DMV-96
- 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 DMV-96

Input Level 1 – 5

By tuning the volume control of the 5 digital inputs the volume will be increased or decreased.

Input Level 6 – 8

By tuning the volume control of the 3 analog inputs the volume will be increased or decreased. The 3 analog inputs will be allocated to the 6. Digital input. This also applies for input CD/MP3.

Control of the master volume

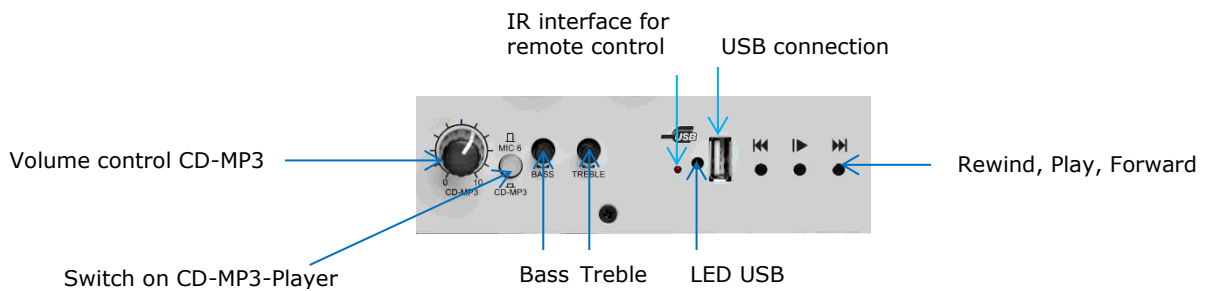
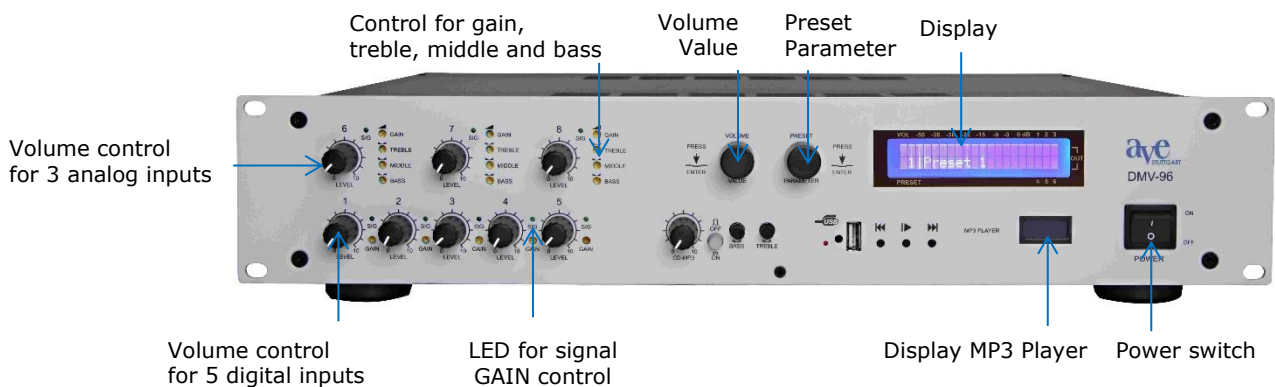
By turning the volume/value control the master volume will be increased or decreased.

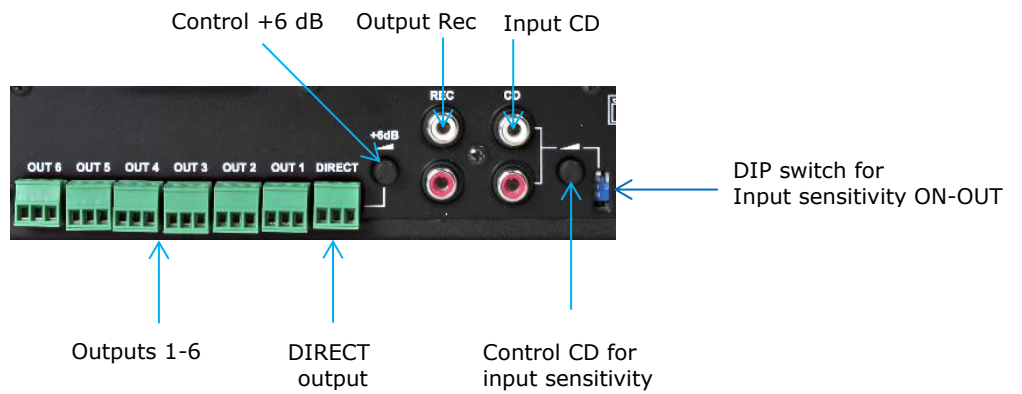
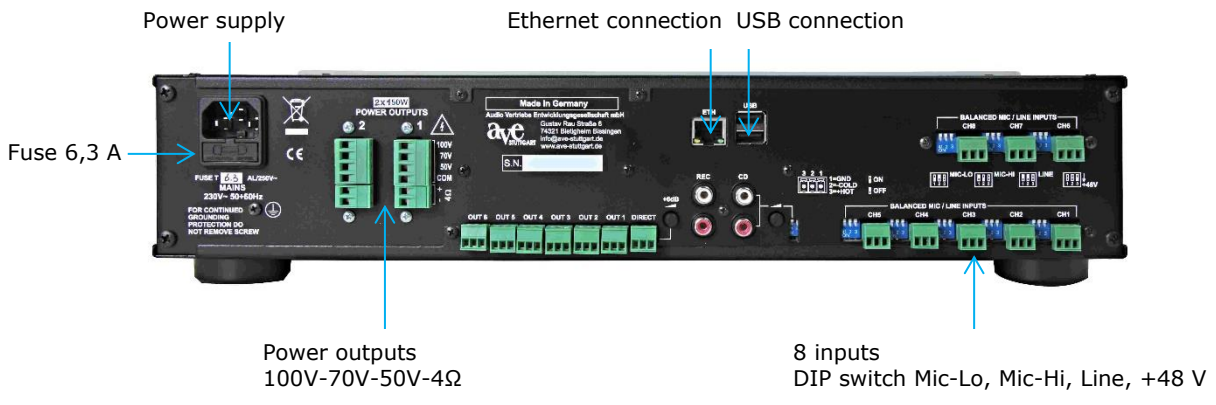
Select Preset

By turning the preset control the desired preset is selected.

Note

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 | 8 (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 _{rms}) |
| Nominal sensitivity (balanced input) MIV-LO | -34 dBu (15mV _{rms}) |
| Nominal sensitivity (balanced input) MIV-HI | -19 dBu (87mV _{rms}) |
| 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) Rs =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 (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 _{rms}) |
| Maximum level (balanced output) | 20 dBu (7.75 V _{rms}) |
| Balanced output impedance | 140 Ω |
| Unbalanced output impedance | 70 Ω |
| Output protection | short circuits Overvoltage protection |

Analog to digital converter

| | |
|---------------------------------|--------------------------------------|
| Bit resolution | 24-bit |
| Converter type | sigma delta |
| sampling frequency (Fs) | 48 kHz |
| Signal to noise ratio (SNR) | 104 dB ("A" weighted @ 48 kHz) |
| Dynamic range | 104 dB (-60 dB _{FS}) |
| Total harmonic distortion (THD) | -93 dB (1 kHz, -1 dB _{FS}) |
| Oversampling factor | 512 Fs |

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 |

Digital to analog converter

| | |
|---------------------------------|-------------------------------------|
| Bit resolution | 24-bit |
| Converter type | sigma delta |
| Sampling frequency (Fs) | 48 kHz |
| Signal to noise ratio (SNR) | 112 dB ("A" weighted @ 48 kHz) |
| Dynamic range | 112 dB (-60 dB _{FS}) |
| Total harmonic distortion (THD) | -94 dB (1 kHz, 0 dB _{FS}) |
| 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 |
|--|--|

5 parametric equalizuer PEQ

Frequency [20 Hz ÷ 20 kHz]
Gain [-15 dB ÷ 15 dB]
Bandwidth [0,01 ÷ 6 oct]

Noise Gate

Threshold [-80 dB_{FS} ÷ 0 dB_{FS}]
Hold time [100 ms ÷ 10 s]

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]

Volume control

[-100 dB ÷ 10 dB]

Routing Matrix

Matrix size
Matrix crosspoint level adjusting

6 inputs / 6 outputs
[-60 dB ÷ 10 dB]

Audio output

Easy adjustment of the sound columns

AT-N series and Live SM series

31 bands graphic equalizer

Gain [-12 dB ÷ 12 dB]

Dynamic compressor range

Threshold [-90 dB_{FS} ÷ 20 dB_{FS}]
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]

Limiter

Threshold fixed at 0 dB_{FS}
[0 m ÷ 35 m], [0 ms ÷ 100 ms]

Delay

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

84 mm

Width

484 mm

Depth

340 mm + 60 mm connector

Weight

5.6 kg (1x480W)

6.8 kg (2x320W and 2x480W)

12 kg (1x150W and 1x240W)

13.5 kg (2x150W)

Temperature range

Indoor

0°C to 40°C (32°F to 102°F)

Certifications

AES48-2005 grounding scheme

2002/95/EC

CE

Notice

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