

DM Series High-Performance, Professional Stereo Mixers

- High-end console performance:
–126 dBV EIN (equivalent input noise)
and –94 dBV A-weighted output noise
- Active balanced, fader-controlled
XLR outputs for left, right, mix
and aux 1
- Logical grouping of controls for
simple operation
- Three aux sends and insert jacks
on each channel allow excellent
signal routing
- 10-segment LED meters for easy
signal monitoring
- Three-year parts-and-labor warranty

SPECIFICATIONS

Conditions:

1. 0 dBu = 0.775 V rms.
2. 0 dBV = 1.0 V rms.
3. Measurements are referred to a 1-kHz,
0-dB sine-wave input unless noted.
4. 120-V, 60-Hz ac line voltage.

Frequency Response, Mic Input to Master Output (EQ flat):

15-35,000 Hz (+1/-3 dB)

Total Harmonic Distortion, 20-20,000 Hz at +14-dBu Output into 600 Ohms:

<0.1%

Equivalent Input Noise (150-ohm termination):

-126 dBV, microphone input

Output Noise at Balanced Outputs

(A-weighted):

-94 dBV residual at master outputs (all
faders down)

Maximum Voltage Gain (± 3 dB),

Channel Input to Subgroup and Monitor

Output:
67 dB

Channel Input to Main Output:

76 dB

Channel Input to Insert Send:

54 dB

Channel Input to Aux Output

(post fader):

66 dB

Aux Return to Subgroup and

Monitor Output:

26 dB

Crosstalk, Adjacent Inputs:

-70 dB, typical at 1,000 Hz

Level Displays,

Type:

10-segment LED Ladders

Range:

-21 dB to +6 dB

Reference:

0 VU = +4 dBu

INPUT SPECIFICATIONS

Input Channel Equalization:

- ± 15 dB low cut/boost centered at 100 Hz
- ± 15 dB mid cut/boost centered at 2,000 Hz
- ± 15 dB high cut/boost centered at
10,000 Hz

Input Channel Gain Control Range:

40 dB (-60 dB to -20 dB)

Microphone Inputs,

Number:

12, 16 or 24

Type/Connector:

Low impedance, balanced,
3-pin XLR type

Polarity:

Pin 2 positive

Maximum Input Level:

+8 dBu with gain control at minimum

Input Impedance:

4.0 kilohms at 1,000 Hz

Phantom Power:

+48 volts

Peak Indicator Threshold

(on each input channel)

+16 dBu (4 dB before clipping)

Line Inputs,

Number:

12, 16 or 24

Type/Connector:

High impedance, unbalanced,
1/4-inch phone jack

Polarity:

Tip positive

Maximum Input Level:

+20 dBu with gain control at minimum

Input Impedance:

10 kilohms

Aux Inputs,

Number:

Three

Type/Connector:

High impedance, unbalanced,
1/4-inch phone jack

Polarity:

Tip positive

Nominal Input Level:

+4 dBu (1.23 volts)

Input Impedance:

10 kilohms

OUTPUT SPECIFICATIONS

Output Impedance,

Balanced Low-Impedance Outputs:

150 ohms

Headphones:

150 ohms

Insert Sends:

600 ohms

Tape Record Outputs:

750 ohms

Maximum Output Level,

Master Outputs:

+24 dBu (12.3 volts)

Headphones:

75 mW

Channel Insert Sends:

+20 dBu (7.75 volts)

Tape Record Outputs:

+10 dBV (3.16 volts)

Power Requirements:

115 or 230 volts, 50 or 60 Hz, 50 watts

FIGURE 3 — DM Series Input Channel Controls

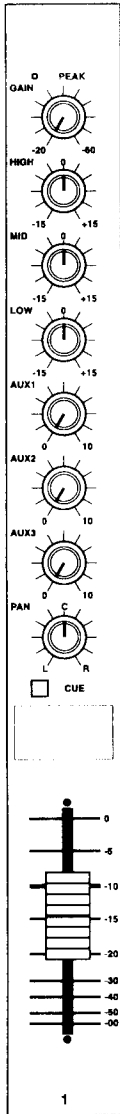
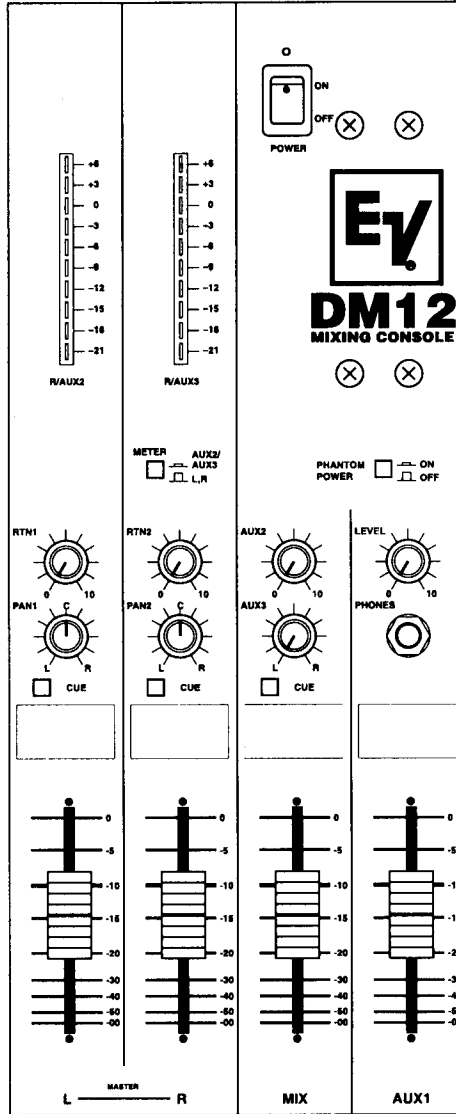


FIGURE 4 — DM Series Output Section Controls



Dimensions, (see Figure 1)

- Height,**
105 mm (4.14 in.)
- Width:**
DM12:
640 mm (25.20 in.)
DM16:
772 mm (30.40 in.)
DM24:
1,036 mm (40.80 in.)
- Depth,**
DM12, DM16, DM24:
423 mm (16.66 in.)
- Weight,**
DM12:
15.0 kg (33 lb)
DM16:
18.1 kg (40 lb)
DM24:
24.0 kg (53 lb)

DESCRIPTION

The Electro-Voice DM Series mixing consoles are cost-effective professional audio mixers with excellent performance. They contain the necessary features for many sound reinforcement applications. Their straightforward control arrangement makes their operation simple.

There are three electrically identical models: DM12, DM16 and DM24 models. Figure 2 shows the signal flow diagram. Figures 3, 4 and 5 show the input controls panel, output section controls and connector panel layout of the mixers.

INPUT SECTION FEATURES

- The input channels have 3-pin XLR-type microphone inputs, 1/4-inch unbalanced line inputs and a three-band EQ. Each input channel also has insert jacks which are useful for looping processors. All input channels have a gain control with a peak LED to accommodate a wide range of sources.
- All channels have three aux sends. Aux 1 is configured pre fader for use as a monitor send. Aux 2 and 3 are configured post fader for use as effects sends.
- All input channels are equipped with a cue (PFL) switch. When the cue switch is engaged, the signal from that channel is routed to the headphone jack and the right channel meter for monitoring. An LED on the meter pod illuminates when the mixer is in this mode.
- All input channels on the DM Series are equipped with 60-mm, high-quality faders.

OUTPUT SECTION FEATURES

- XLR-type 3-pin active-balanced low-impedance outputs for left, right, and mix. These outputs are each controlled by their own faders. There is also a fader-controlled output for aux 1.
- A powerful headphone amplifier with level control and three-conductor, 1/4-inch phone jack mounted on the front panel.
- Separate sends controls for aux 1, 2 and 3 returns for returns 1 and 2.

FIGURE 5 — DM Series Connector Panel Layout

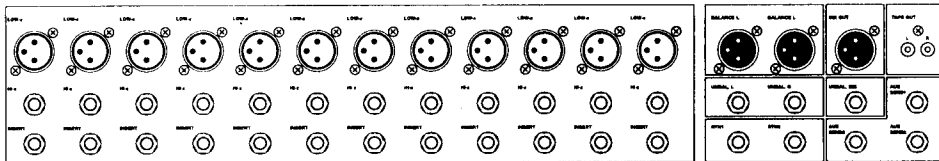


FIGURE 6 — DM Series Rear-Panel Switches

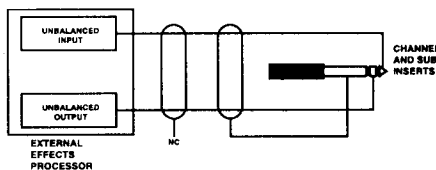


FIGURE 1 — DM Series Overall Dimensions

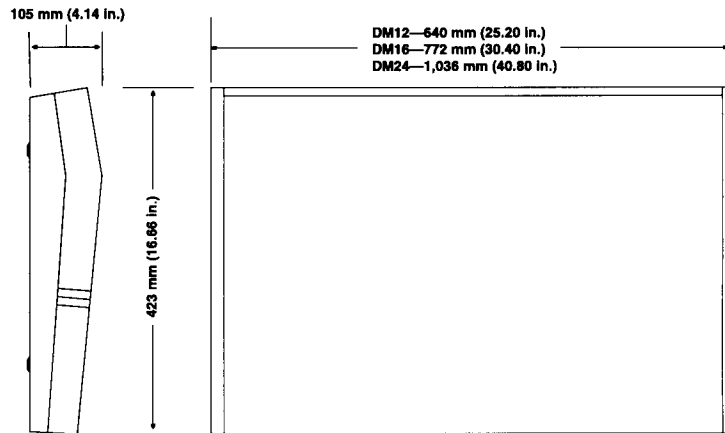
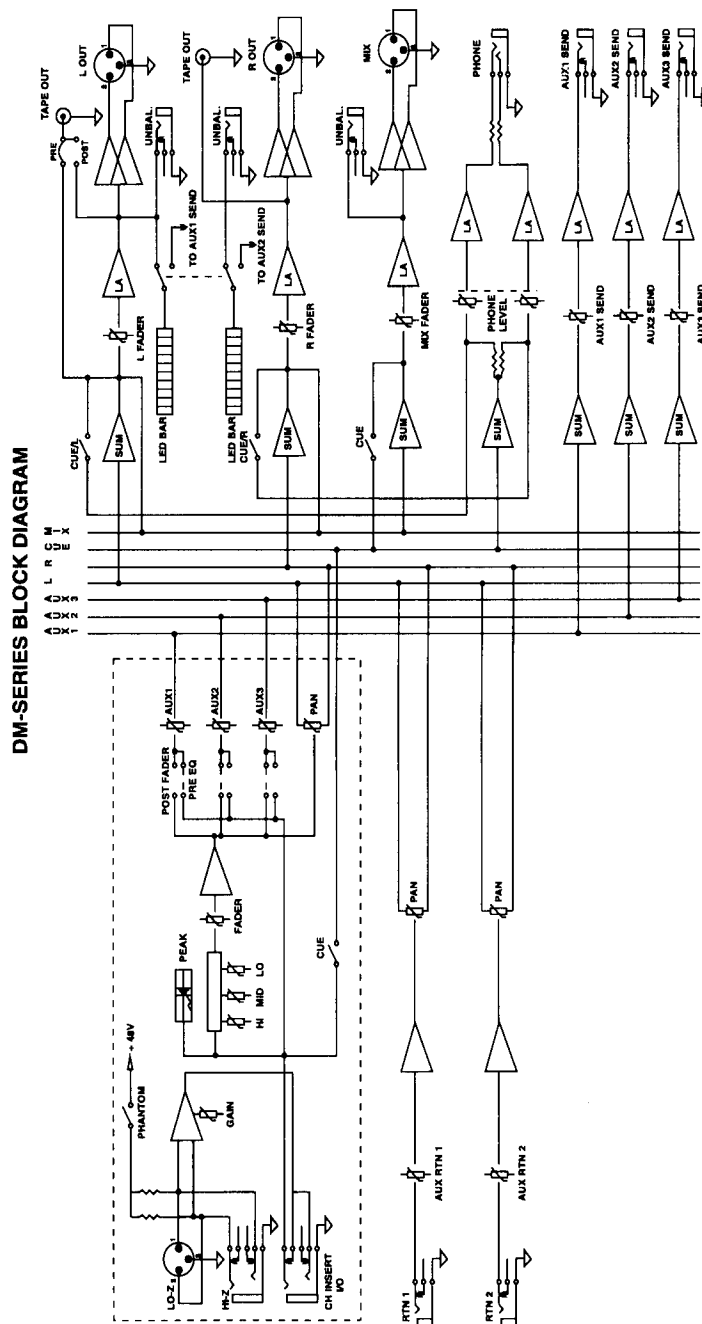


FIGURE 2 — DM Series Signal-Flow Diagram



- Tape record output via stereo RCA-type phono connectors fixed at -10 dBV level to interface with consumer tape decks without input overload.

GENERAL FEATURES

- High-quality components used throughout. Each input channel is a separate printed circuit board for low crosstalk and easier servicing, if required.
- Integral power supply with excellent current capacity and very low noise.
- The DM series has phantom power which supplies +48 volts to operate condenser microphones and direct boxes.
- Two LED meters, with 10 LED's each. They can be switched to read either left, right or aux 2 and aux 3 levels.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The mixer shall have (12, 16, 24) input channels with top-mounted input and output connectors.

The input channels shall have a 3-pin XLR-type connector with universal phantom power and 1/4-inch, unbalanced, high-impedance line inputs. These channels will have three-band EQ with, ±15 dB of boost/cut, and a cue switch.

All input channels will have three aux sends. Aux 2 and 3 are post fader. The master section shall have separate sends, returns, pans aux 1 and 2.

The mixer shall have XLR-type 3-pin active-balanced output connectors for left, right and mix. These outputs will be fader controlled. The mixer shall have separate stereo tape record and jacks. The mixer shall have 10-segment LED meters that will monitor left, right, or aux 1 and aux 2 levels.

The mixer shall be the Electro-Voice DM12, DM16 and DM24.

UNIFORM LIMITED WARRANTY

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid.

Exclusions and Limitations: The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice or any of its authorized service representatives. **Obtaining**

Warranty Service: To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831 or 800/234-6831). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (616/695-6831 or 800/234-6831).

Specifications subject to change without notice.

Electro-Voice Electronics are guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.



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