

# Élan Series

## High-Performance, Professional Stereo Mixers



- High-end console performance:  $-131$  dBV EIN (equivalent input noise) and  $-87$  dBV A-weighted output noise
- Active balanced, fader-controlled XLR outputs for left, right, main and monitor
- Logical grouping of controls for simple operation
- Three aux sends and insert jacks on each channel allow excellent signal routing
- "B" scale VU meters with integral peak LED 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):

20-20,000 Hz (+1/-3 dB)

#### Total Harmonic Distortion, 20-20,000 Hz at +4-dBu Output into 600 Ohms:

<0.05%

#### Equivalent Input Noise

#### (150-ohm termination):

$-131$  dBV, microphone input

#### Output Noise at Balanced Outputs

#### (A-weighted):

$-87$  dBV residual at master outputs (all faders down)

#### Maximum Voltage Gain ( $\pm 3$ dB),

#### Channel Input to Subgroup and Monitor

#### Output:

78 dB

#### Channel Input to Main Output:

86 dB

#### Channel Input to Insert Send:

52 dB

#### Channel Input to Aux Output

#### (post fader):

88 dB

#### Aux Return to Subgroup and

#### Monitor Output:

20 dB

#### Auxiliary Input to Auxiliary Output:

10 dB

#### Monitor Input to Monitor Output:

10 dB

#### Crosstalk, Adjacent Inputs:

$-65$  dB, typical at 1,000 Hz

#### Level Displays,

#### Type:

Two "B"-scale analog VU meters with integral peak LED's that illuminate at +14 dBu (10 dB before clipping)

#### Range:

$-20$  dB to +3 dB

#### Reference:

0 VU = +4 dBu

### INPUT SPECIFICATIONS

#### Input Channel Equalization:

$\pm 15$ -dB low cut/boost centered at 100 Hz;

$\pm 15$ -dB mid cut/boost sweepable from 300-5,000 Hz;

$\pm 15$ -dB high cut/boost centered at 10,000 Hz

#### Input Channel Gain Control Range:

40 dB ( $-52$  dB to  $-12$  dB)

#### Microphone Inputs,

#### Number:

8, 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:

4.4 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:

8, 12, 16 or 24

#### Type/Connector:

High impedance, unbalanced,

1/4-inch phone jack

#### Polarity:

Tip positive

#### Maximum Input Level:

+33 dBu with gain control at minimum

#### Input Impedance:

60 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:

5 kilohms

### OUTPUT SPECIFICATIONS

#### Output Impedance,

#### Balanced Low-Impedance Outputs:

150 ohms

#### Headphones:

100 ohms

#### Insert Sends:

100 ohms

#### Aux Sends:

100 ohms

#### Subgroup Inserts:

75 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)

FIGURE 1 — Élan Mixer Overall Dimensions

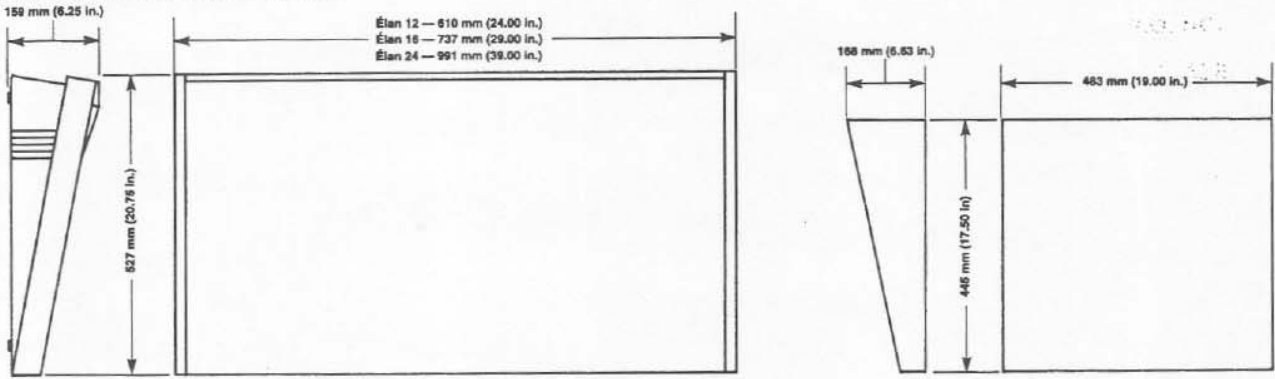


FIGURE 2 — Élan Mixer Signal-Flow Diagram

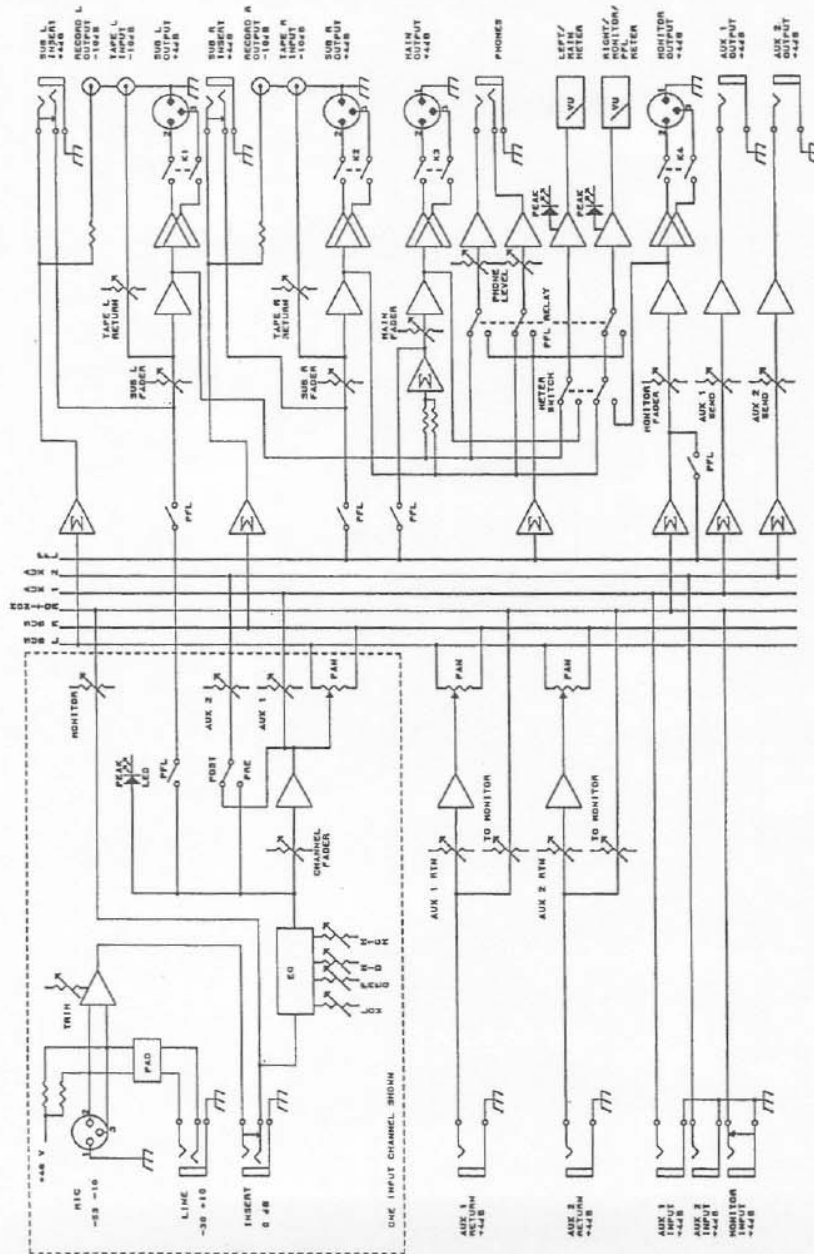


FIGURE 3 — Élan Mixer Input Channel Controls



FIGURE 4 — Élan Mixer Output Section Controls

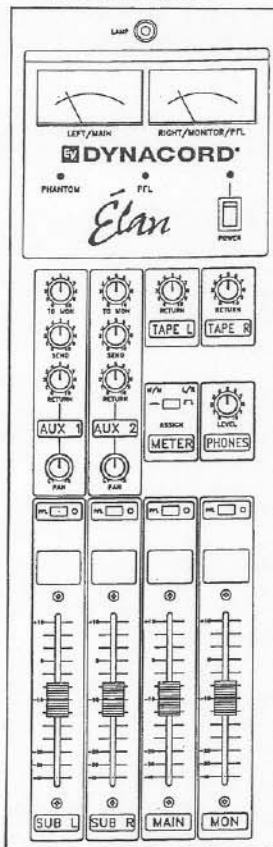


FIGURE 5 — Élan Mixer Rear-Panel Switches

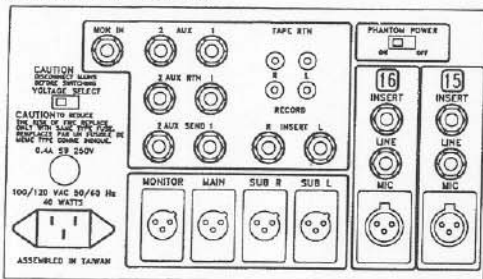


FIGURE 6 — Élan Mixer Typical Insert Connection

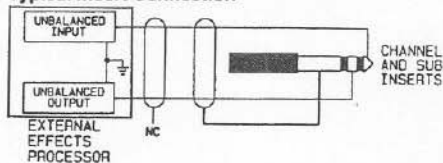
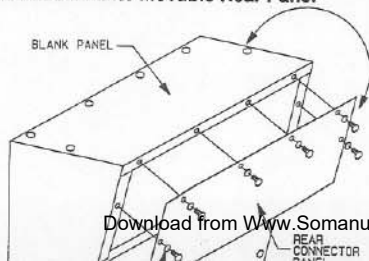


FIGURE 7 — Élan 8 Rack-Mountable Mixer Movable Rear Panel



- Subgroup Inserts:**  
+20 dBu (7.75 volts)
- Power Requirements:**  
115 or 230 volts, 50 or 60 Hz, 50 watts (switchable)
- Dimensions,**
- Height,**  
Élan 8:  
168 mm (6.63 in.)  
Élan 12, Élan 16, Élan 24:  
159 mm (6.25 in.)
- Width:**  
Élan 8:  
483 mm (19.00 in.)  
Élan 12:  
610 mm (24.00 in.)  
Élan 16:  
737 mm (29.00 in.)  
Élan 24:  
991 mm (39.00 in.)
- Depth,**  
Élan 8:  
445 mm (17.50 in.)  
Élan 12, Élan 16, Élan 24:  
527 mm (20.75 in.)
- Weight,**  
Élan 8:  
12.2 kg (27 lb)  
Élan 12:  
15.0 kg (33 lb)  
Élan 16:  
18.1 kg (40 lb)  
Élan 24:  
24.0 kg (53 lb)

**DESCRIPTION**

The EV/Dynacord Élan series mixers are high-performance, professional stereo consoles. Their wide range of features, excellent performance and signal-routing capabilities make them ideal for many audio applications requiring high-quality audio for sound reinforcement. The controls and functions are clearly labeled and logically grouped for easy operation.

There are four electrically identical Élan models: an eight-channel unit that comes configured for rack-mount installation but may be converted to console configuration (see Figure 7), plus 12-, 16- and 24-channel consoles. The eight-channel Élan utilizes 60-mm faders instead of the 100-mm ones used on the other versions.

Figure 2 shows the Élan signal-flow diagram. Figures 3, 4, and 5 are, respectively, detailed views of an input channel, the output section and the rear panel. Figure 6 illustrates a typical insert connection. Figure 7 shows the interchangeability of the Élan 8 connector panel.

**INPUT SECTION FEATURES**

- The input channels have 3-pin XLR-type microphone inputs and 1/4-inch unbalanced line inputs with three-band EQ with semi-parametric mids. 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. The

fader for use as an effects send and aux 2 is switchable pre/post on each channel so that it may be configured as a monitor (pre) or effects (post) send.

- All input channels are equipped with a pre-fader-listen (PFL) switch. When the PFL 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 function.
- All input channels on the Élan 12, 16 and 24 are equipped with 100-mm, high-quality faders. The Élan 8 is equipped with 60-mm faders to allow installation in 10 rack spaces (17.5 in.).
- Inputs for stereo tape deck, CD player or other high-level source, with separate left and right level controls and RCA-type phono connectors. Signal is routed to the sub left and sub right outputs.

#### OUTPUT SECTION FEATURES

- XLR-type 3-pin active-balanced low-impedance outputs for sub left, sub right, main and monitor. These outputs are each controlled by their own faders. There are also insert jacks on sub left and right to allow connection of equalizers or other universal signal processors.
- A powerful headphone amplifier with level control and three-conductor, 1/4-inch phone jack mounted on the front panel.
- Separate send and return and aux-to-monitor controls for aux 1 and 2.
- 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 mixers use an IEC connector with removable cable for easy matching to local requirements. A two-position switch allows operation anywhere in the world.
- UL and CSA approved.

- The Élan series has phantom power which supplies +48 volts to operate condenser microphones and direct boxes.
- Two "B" scale analog VU meters, with integral peak LED's which illuminate when 10 dB of headroom remains. The meters are illuminated with amber LED's which are not prone to burnout and provide excellent readability. They can be switched to read either left, right or main/monitor levels. The right meter also reads the PFL signal in either mode.
- A BNC connector behind the meter pod allows easy connection of Littlelite® gooseneck lamps. Either regular or high-intensity lamps may be used without problems.

#### ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The mixer shall have 8 (12, 16, 24) input channels with rear-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,  $\pm 15$  dB, with semiparametric mids sweepable from 300 Hz to 5,000 Hz and a pre-fader-listen (PFL) switch.

All input channels will have three aux sends. Aux 2 will be switchable pre or post fader on each channel's control panel. The master section shall have separate sends, returns, pans and aux-to-monitor for aux 1 and 2.

The mixer shall have XLR-type 3-pin active-balanced output connectors for sub left, sub right, main and monitor. These outputs will be fader controlled. The mixer shall have separate stereo tape record and playback jacks. The mixer shall have analog "B"-scale meters that will monitor left, right, PFL or main and monitor levels. These meters shall have integral peak LED's that illuminate at +14 dBu.

The mixer shall be the EV/Dynacord Élan 8 (Élan 12, Élan 16, Élan 24).

#### WARRANTY (Limited)

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) and/or Electro-Voice West, at 8234 Doe Avenue, Visalia, CA 93291 (209/651-7777 or 800/825-1242). **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.

**Electro-Voice and EV/Dynacord 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.

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.

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