

TECHNICAL DATA

LIVE 4²



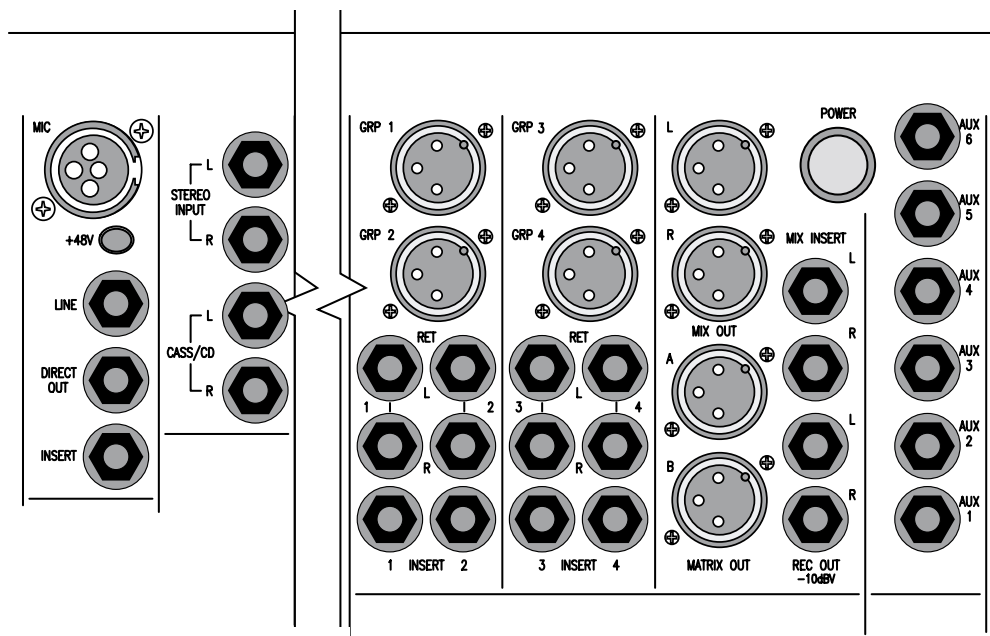
INTRODUCTION

- From 28 up to 56 inputs -
12 to 40 mono, 8 stereo
- 4 group busses
- UltraMic+ preamps with up to 66dB gain range
- +48V phantom power, individually switchable on each channel

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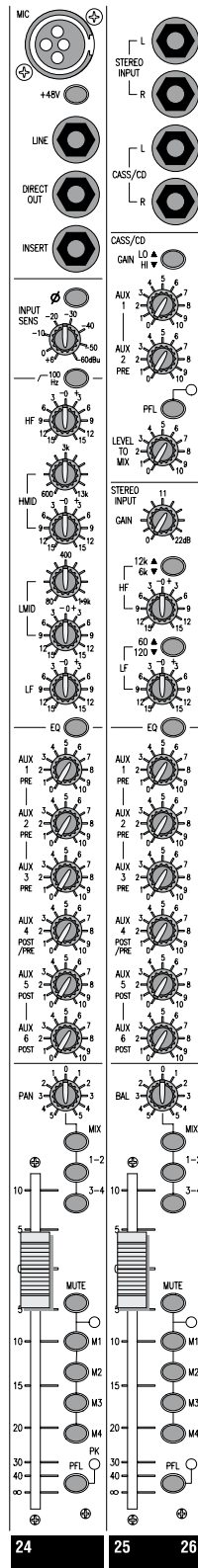
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CONNECTORS



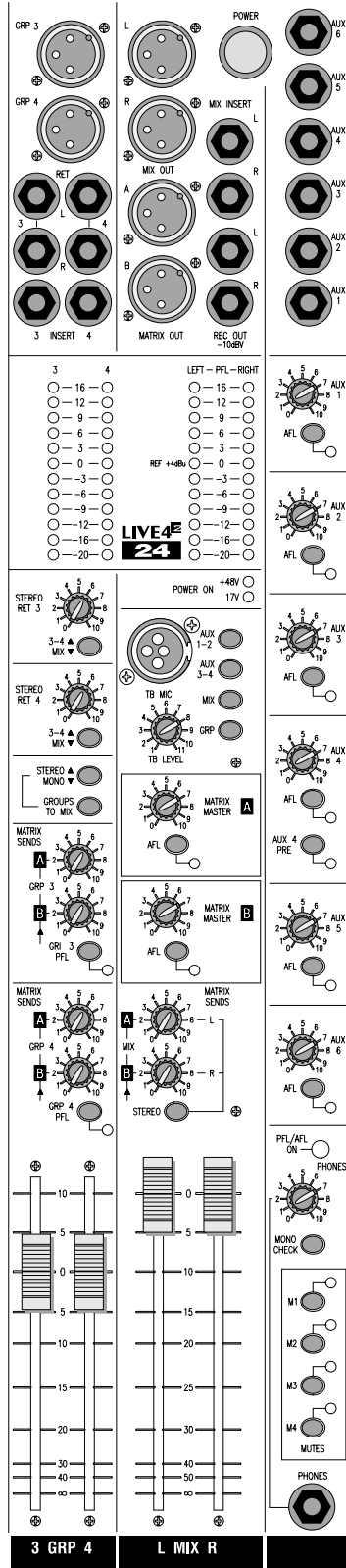
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MONO/STEREO INPUTS



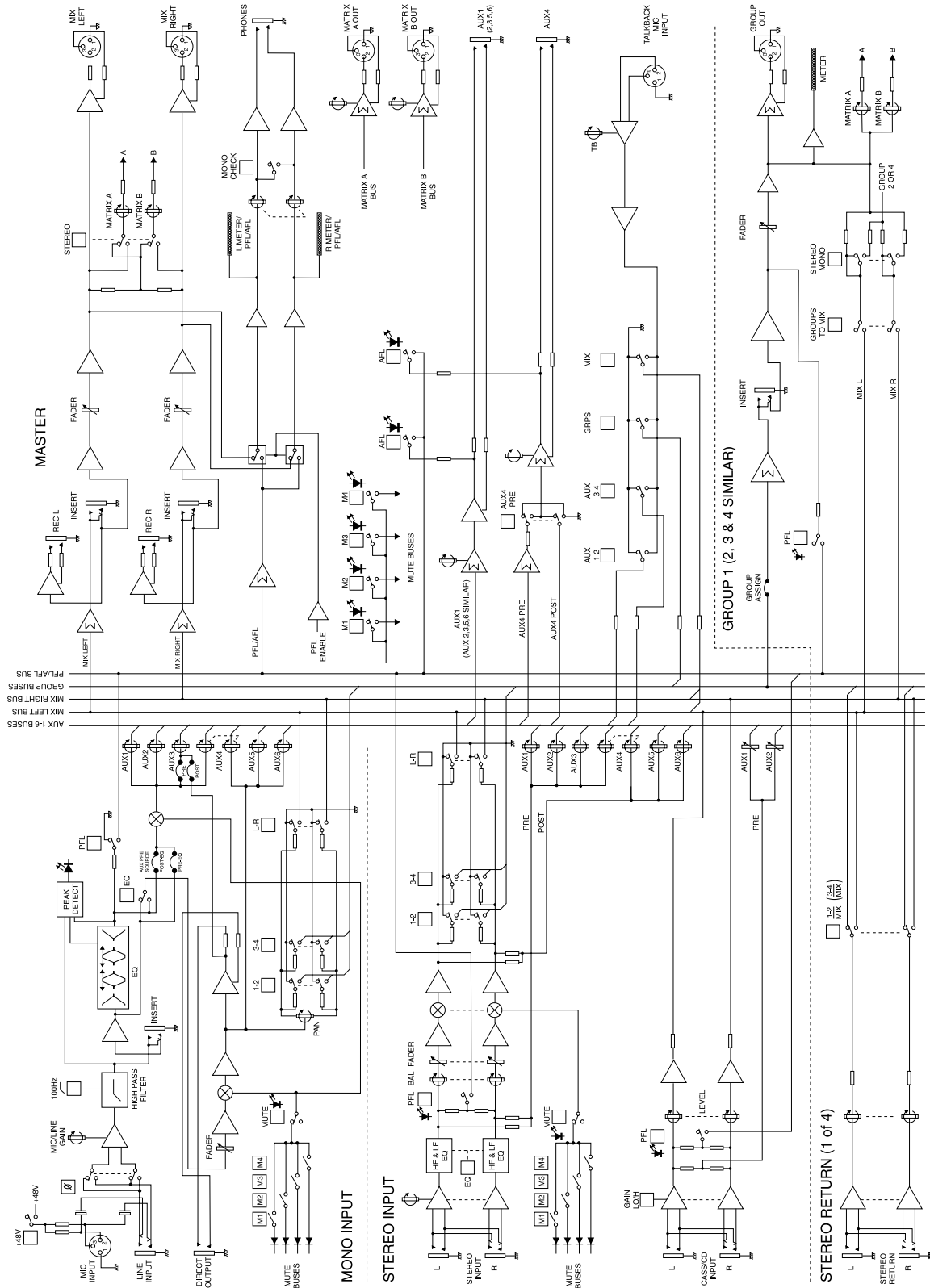
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GROUP/MASTER SECTION



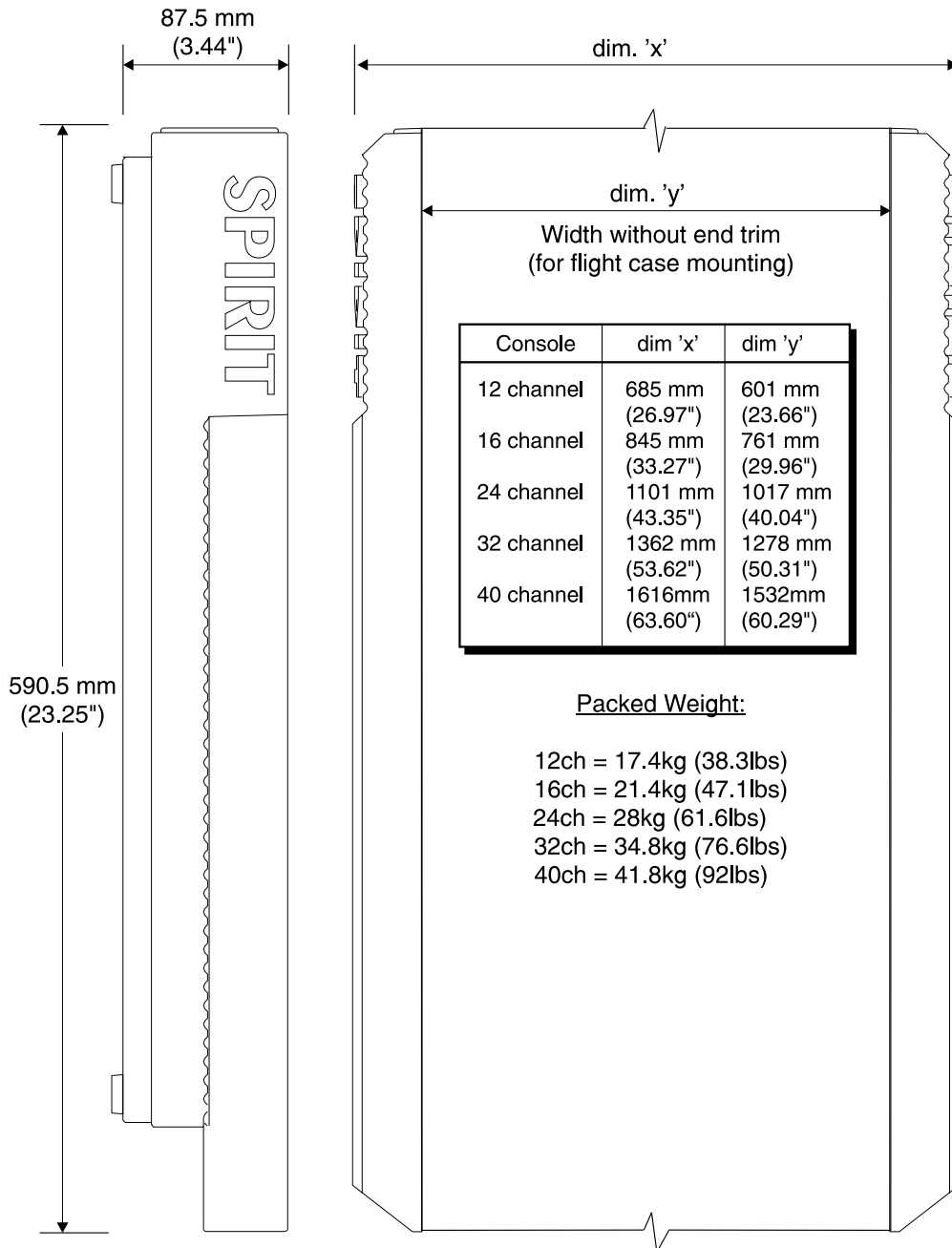
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BLOCK DIAGRAM



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DIMENSIONS



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ARCHITECT'S SPECIFICATION

The Mixing Console shall be constructed in an all-steel chassis, with removable side cheeks, and shall be available in a 12, 16, 24, 32, and 40 input configuration. An 8 input "side-car" shall be an option for the 12, 16 and 24 channel versions. There shall be one PCB per channel and master section. There shall be Main Left/Right outputs, 4 Group outputs, 2 Matrix outputs, and L/R recording outputs in addition to 6 auxiliary send outputs and Direct outputs at each channel strip. There shall be 4 stereo effects return inputs, which default to Mono with only Left input applied. On 12 channel versions, there will be 1 Stereo input strip which also includes a 2 Track return section, and on all other versions, 2 similar Stereo inputs shall be provided. A Talkback facility shall be included, assignable to the Aux sends, Groups, or Mix outputs. 4 Mute groups will be provided. The unit will be supplied with an external power supply, model number DCP125.

Each Mono Input shall have a balanced low-impedance input via an XLR socket and a line-level 1/4" balanced TRS connector. Line input shall override the XLR input. Sensitivity shall be continuously variable from +6 dBu to -60 dBu, and phantom power will be switchable. There shall be a switchable 100Hz High Pass filter with an 18db per octave slope, along with a Phase switch. The EQ shall be a 4-band type with a Shelving HF at 12kHz, Shelving LF at 80Hz, and two sweepable mid-range controls from 80Hz - 1.9kHz, and 550Hz - 13kHz respectively. The Q for Mid-range control shall be fixed at 1.5. Gain shall be cut or boosted by 15db on all bands (center detented). The EQ circuit shall be engaged via a switch. Six external Aux sends shall be provided. Auxes 1, 2, and 3 will be pre-fader, with an internal jumper to configure Aux 3 for post-fade operation. Aux 4 will be globally switchable to pre or post-fader, and Auxes 5 and 6 will be post fade. All pre-fade Auxes will be internally solder-linkable for pre or post-EQ operation. All sends will be post-mute. There shall be a pre-EQ, pre-mute TRS 1/4" insert point. Routing shall be assigned, post-pan, to the Mix, Group 1-2, and Group 3-4 via a switch above each fader. Faders will be 100mm Alps faders. There shall be provided four Mute Group switches along with a main Mute switch and Mute LED indicator, as well as a PFL switch and LED indicator which doubles as a peak signal indicator.

Each Stereo input strip will have a two parts. The first will be a 2 Track input section with a Low/High gain switch, Aux 1 & 2 sends, a level to Mix pot, and a PFL switch. Inputs will be line-level via 2 1/4" balanced TRS connectors. Stereo Channels will default to mono with only Left input applied. The second part will utilize dedicated balanced line-level 1/4" inputs, will have an input stage with continuously variable gain control from 0-22 db, a 2 band EQ consisting of two frequency switches for 6K or 12K and for 60Hz or 120Hz respectively, and an EQ cut/boost level control. Gain shall be cut or boosted by 15db on all bands (center detented). The EQ circuit shall be engaged via a switch. Six external Aux sends shall be provided. Auxes 1, 2, and 3 will be pre-fader. Aux 4 will be globally switchable to pre or post-fader, and Auxes 5 and 6 will be post fade. Post-fader sends will be post-mute. A Balance knob will be provided that will operate as a Pan control with only one input injected into the channel strip. Routing shall be assigned, post-balance, to the Mix, Group 1-2, and Group 3-4 via a switch above each fader. Faders will be 100mm Alps faders. There shall be provided four Mute Group switches along with a main Mute switch and Mute LED indicator, as well as a PFL switch and LED indicator.

The Group sections shall have 100mm faders situated to the left of the Master faders. Outputs will be routed to dedicated balanced XLR jacks with TRS insert points. A switch to route Groups to Mix will be provided, as well as a switch for Stereo (ganged as pairs) or mono operation. PFL switches will be provided on each Group, as well as 2 Matrix Send levels per group (one for each Matrix) with dedicated PFL switches.

The Master section shall consist of two 100mm master faders which control Left and Right master level. Six master Aux

sends with AFL switches shall be provided, as well as 4 external stereo Aux returns which default to mono with only Left input. Each Aux return will have a dedicated level control. Switches shall be provided to send Returns 1 & 2 to either Mix or Groups 1 & 2, and Returns 3 & 4 to Mix or Groups 3 & 4. Aux master sends shall be configured with an AFL solo button. 2 Mix to Matrix Sends will be included, which may be linked for stereo operation, and Master Matrix level controls with AFL will be provided for each Matrix. A Talkback facility, assignable to the Aux sends, Groups, or Mix outputs shall be provided. There shall be a 12 segment multi-colored LED meter for the Group Masters, and Left / Right Masters, and a master AFL/PFL LED indicator shall be provided. Two LED indicators for Voltage monitoring shall be included. There shall be four Master Mute Group switches, and a Mono compatibility switch. Master outputs shall be balanced XLR with 1/4" TRS inserts available. A 1/4" balanced Stereo output shall be provided rated at -10 dbv, deriving its signal from the Left and Right Master Outputs. A 1/4" stereo headphone jack will be provided with dedicated level control.

The console dimensions and weight shall be published in product literature according to frame size. The console shall be called the Spirit Live 42.

LIVE 4²

TYPICAL SPECIFICATIONS

NOISE

Measured RMS, 22Hz to 22kHz Bandwidth
Line inputs selected at unity gain and terminated 150R

MIX

26 Inputs routed to Mix, faders at unity, muted-82 dBu
Mix Faders down-97 dBu

AUX

26 Inputs routed, output at max., input faders down-84 dBu

DIRECT OUTPUT

Input to Direct Output @ unity gain-87 dBu
Input to Direct Output @ 40dB gain-77 dBu

MATRIX OUTPUT

Matrix Output at max., sends down-95 dBu

E.I.N.

Microphone Input, Maximum Gain, terminated 150R-129 dBu

CROSSTALK

@ 1kHz

Typical Channel Fader Attenuation> 80 dB
Typical Aux Attenuation> 80 dB
Typical Pan Isolation> 70 dB
Adjacent Channel Crosstalk> 85 dB

FREQUENCY RESPONSE

20Hz to 20kHz -1dB

T.H.D.

-10dBu Input routed to Mix, +20dBu out @ 1kHz< 0.006%

C.M.R.R.

Typical at max. gain @ 1 kHz-85 dB
Typical at any gain @ 50 Hz-65 dB

INPUT & OUTPUT IMPEDANCES

Microphone Input1.8 k Ω
Line Input10 k Ω
Stereo Input8.6 k Ω
Cass/CD Input12.8 k Ω
Stereo Return19 k Ω

INPUT & OUTPUT LEVELS

Mic/Line Input Maximum Level+28 dBu
Stereo Input+25 dBu
Cass/CD Input+18 dBu
Stereo Return+22 dBu
Nominal Input for +4dBu at Mix Output, level at '7'-10 dBV (LO)
.....-20 dBV (HI)
Max. Mic Gain through longest path to Mix84 dB