

SPIRIT 8

INTRODUCTION

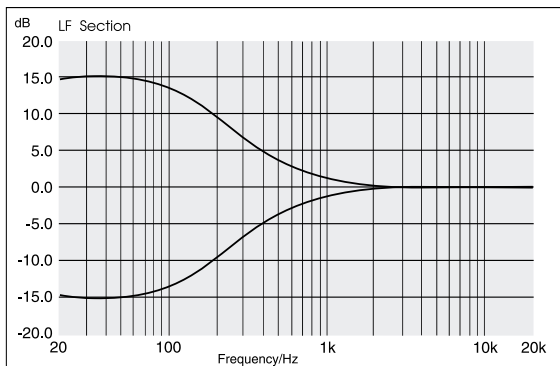
- From 24 up to 56 inputs
- 8 group busses
- UltraMic+ preamp with up to 66dB gain range
- +48V phantom power, individually switchable on each channel
- 4-band EQ with two swept mid bands
- 4 mute groups
- Additional outputs on 10 x 2 matrix

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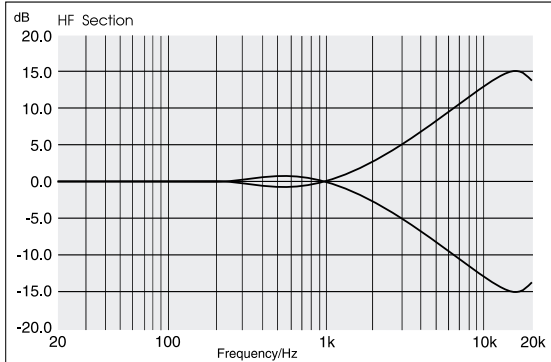
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TYPICAL EQ CURVES

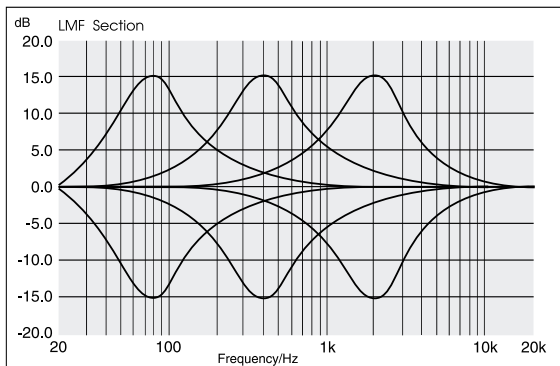
LO EQ



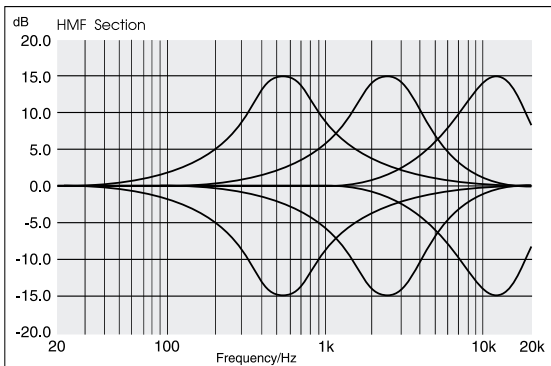
HI EQ



LO MID SWEEP EQ

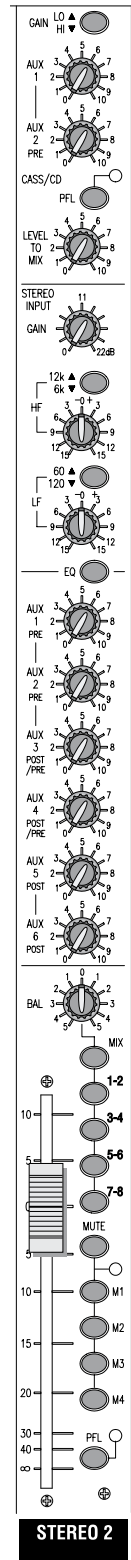
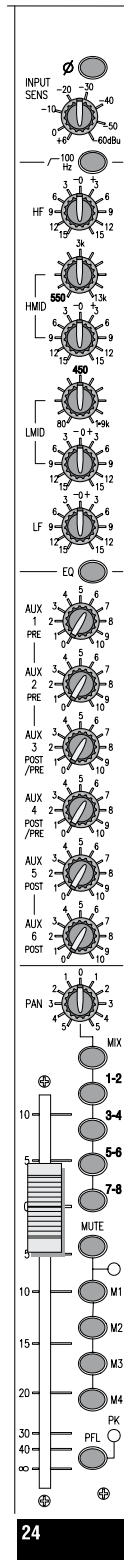


HI MID SWEEP EQ



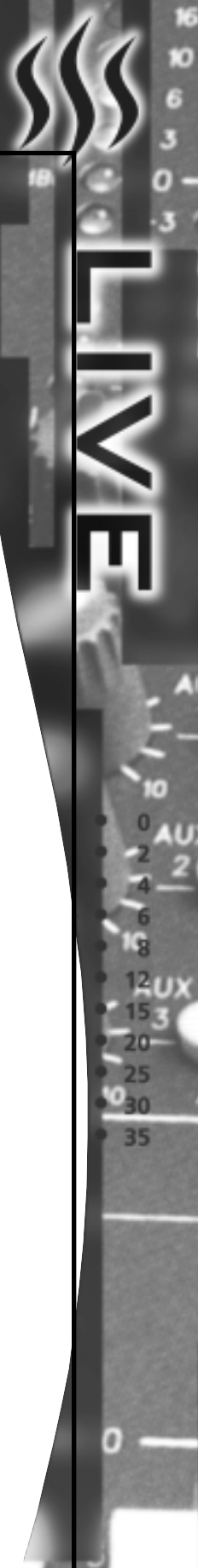
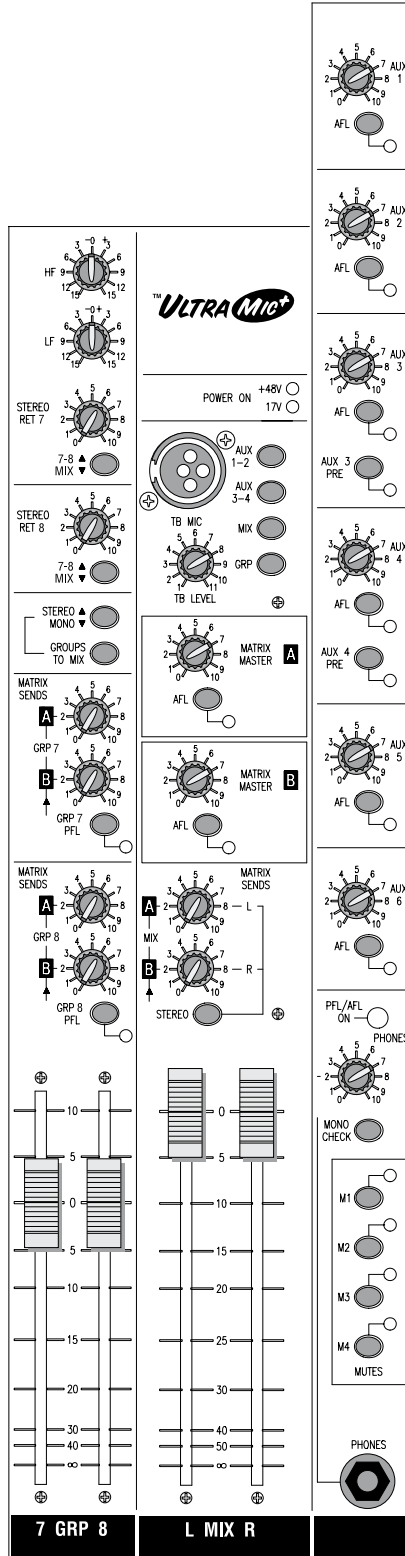
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MONO/STEREO INPUTS



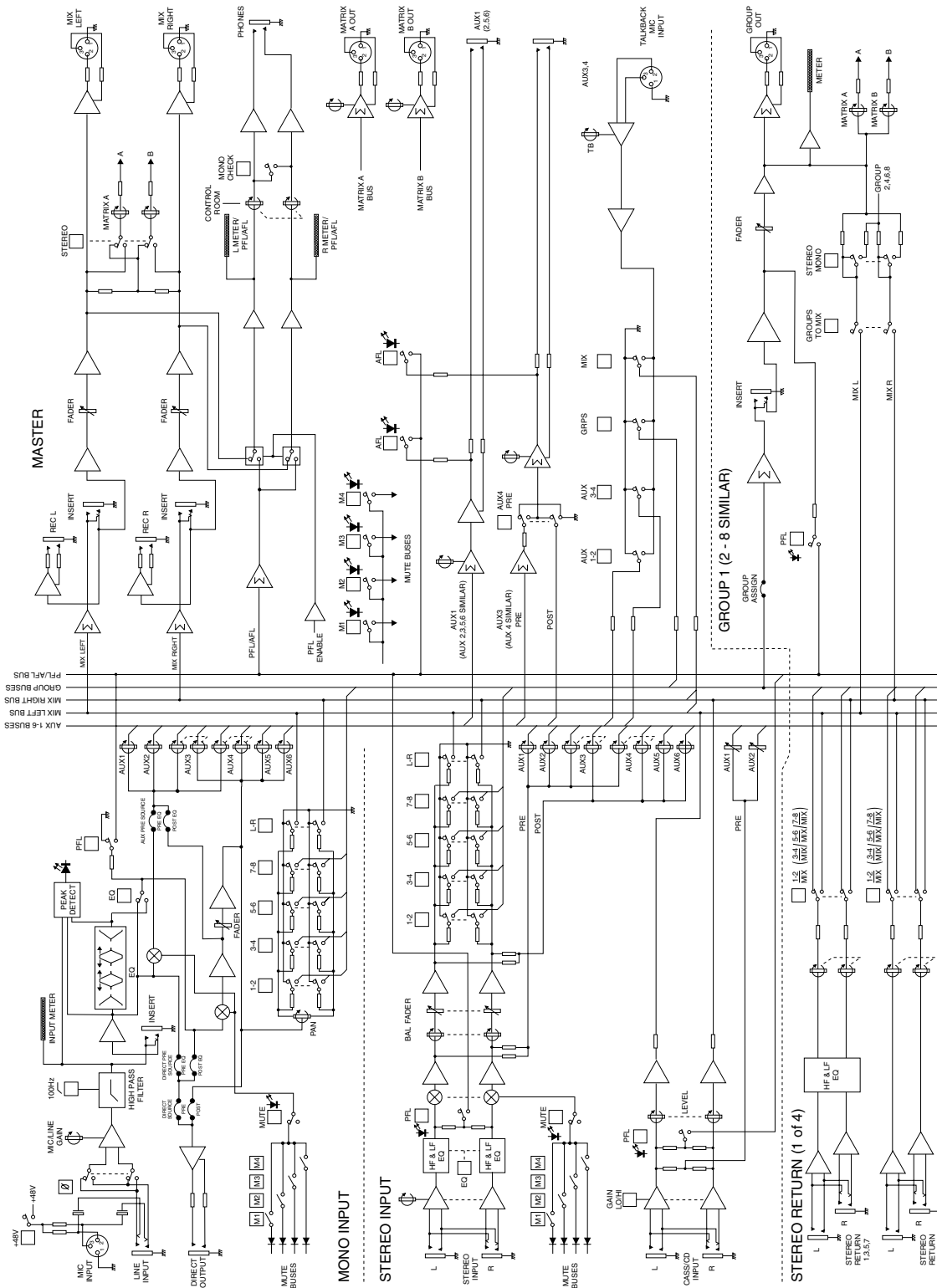
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GROUP/MASTER SECTION



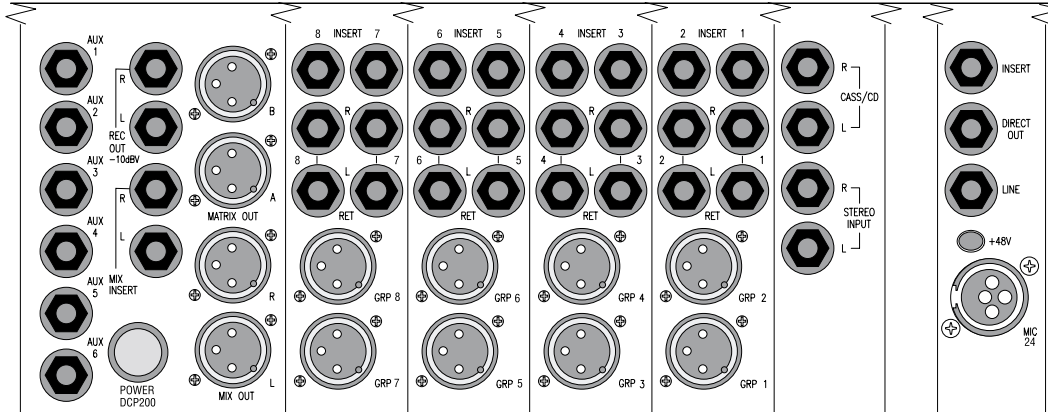
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BLOCK DIAGRAM

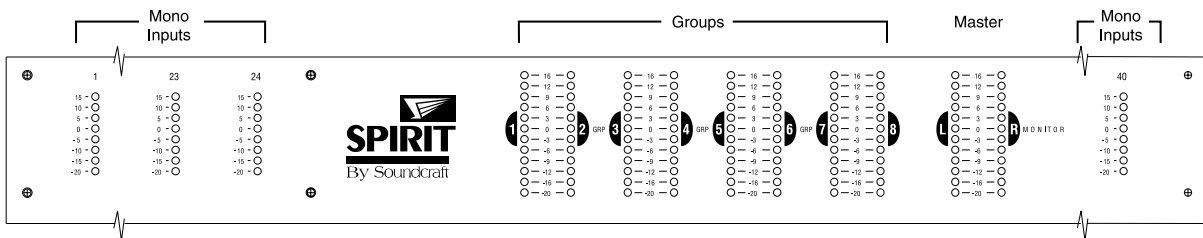


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CONNECTORS

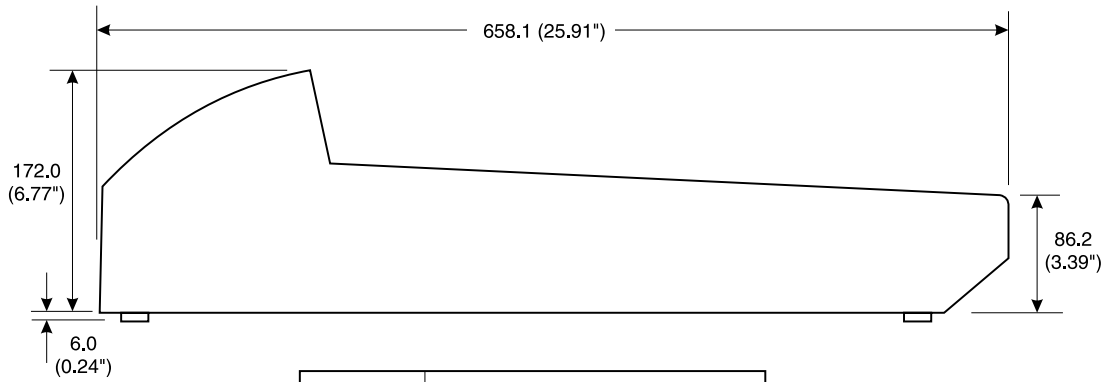


METERBRIDGE



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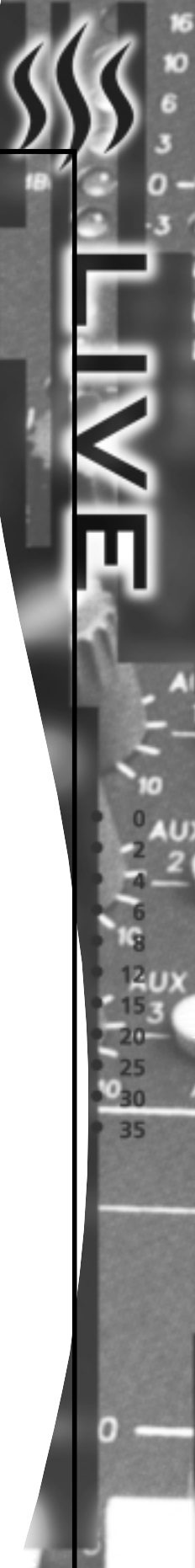
DIMENSIONS



Console	Frame Width (including side trims)
16 Input	875 (34.45")
24 Input	1114 (43.86")
32 Input	1347 (53.03")
40 Input	1581 (62.24")

Packed Weight:

16ch = 29.6 (65lbs)
 24ch = 38.2kg (84lbs)
 32ch = 45.6kg (100lbs)
 40ch = 53.6kg (118lbs)



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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 16, 24, 32, and 40 input configuration. There shall be one PCB per channel and master section. There shall be Main Left/Right outputs, 8 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 8 stereo effects return inputs, which default to Mono with only Left input applied. There will be 2 Stereo input strips which include separate 2 Track return sections. 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 DCP200.

Each Mono Input shall have a balanced low-impedance input via an XLR socket and a line-level input via a 1/4" balanced TRS connector. Line input shall override 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, 3, and 4 will be pre-fader, with Aues 3 and 4 globally switchable for pre or post-fader operation. Auxes 5 and 6 will be fixed post fade. All pre-fade Auxes will be internally jumperable for pre or post-EQ operation. All sends will be post-mute. A Direct output will be provided with standard output post-EQ and post-fader, but shall have an internal jumper for pre-fade/EQ operation. 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, Group 3-4, Group 5-6, and Group 7-8 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 shall double as a signal peak indicator. An eight-segment multi-colored LED peak meter will be provided for channel level indication.

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, 3, and 4 will be pre-fader, with Auxes 3 and 4 globally switchable for pre or post-fader operation. Auxes 5 and 6 will be fixed post fade. All 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, Group 3-4, Group 5-6, and Group 7-8 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 8 external stereo Aux returns which default to mono with Left input. Each Aux return will have a dedicated level control. Switches shall be provided to send Returns to their respective Group (returns 1 & 2 to Groups 1 & 2, returns 3 & 4 to Groups 3 & 4, etc.) and/or directly to the Mix. 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. 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 each Group and Left / Right Master, 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 8.

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TYPICAL SPECIFICATIONS

NOISE

Measured RMS, 20Hz to 20kHz Bandwidth
Line inputs selected at unity gain and terminated 150Ω

MIX

36 Inputs routed to Mix, faders at unity -81 dBu
Mix Faders down -95 dBu

AUX

36 Inputs routed, output at max., input faders down -86 dBu

DIRECT OUTPUT

Input to Post-Fade Output @ unity gain -90 dBu
Input to Post-Fade Output @ 40dB gain -81 dBu

MATRIX OUTPUT

Matrix Output at max., sends down -93 dBu

E.I.N.

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

CROSSTALK

@ 1kHz 1kHz 10kHz
Fader Attenuation to Direct Output92 dB80dB
Fader Attenuation to Mix (36ch. routed) .94 dB89 dB
Fader Attenuation to Mix (1 ch. routed) .101 dB89 dB
Typical Aux Attenuation88 dB83 dB
Pan Isolation (36ch. to Mix) L to R76 dB68 dB
R to L81 dB83 dB
Adjacent Channel Crosstalk99 dB95 dB
Routing Isolation86 dB86 dB
Mute Offness104 dB88 dB

FREQUENCY RESPONSE

Line In to Mix Out via Group (longest path)
25Hz to 20kHz -1dB

T.H.D.

-10dBu Input routed to Mix, +20dBu out @ 1kHz < 0.005%

C.M.R.R.

Typical at medium gain, 50Hz to 10kHz > 80 dB
Typical at high gain, 50Hz to 10kHz > 85 dB

INPUT & OUTPUT IMPEDANCES

Microphone Input 1.8 kΩ
Line Input 10 kΩ
Stereo Input 8.6 kΩ
Cass/CD Input 12.8 kΩ
Stereo Return 19 kΩ

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