Specifications

Max output level	+21dBu into >2k load
Nominal output level	0dBu (0.775 Volts rms)
Headroom	+21dB
Freq response	+/-1dB 20Hz to 30kHz
Distortion	< 0.006% THD+N @1kHz +10dBu
Crosstalk	<-90dB Channel to channel @1kHz
	<-95dB Mute shutoff
	<-95dB Fader shutoff
MIC EIN 22-22kHz	-128dB 150 ohm source
Residual noise	< -88dBu
Mix noise	< -84dBu
Meters	Peak reading 12 LED
	-30 to +16dB
Channel Peak	5dB before clipping

Channel HPF	100Hz 12dB/octave
Channel EQ	4-Band semi-parametric
	+/-15dB gain
	HF shelving 12kHz
	HM bell 350Hz to 7kHz
	LM bell 250Hz
	LF shelving 60Hz
Output EQ	4-Band semi-parametric
	+/-10dB
	HF bell 1k5 to 20kHz
	HM bell 500 to 10kHz
	LM bell 120 to 2kHz
	LF bell 20 to 200Hz
Mono Sub LPF	100Hz 12dB/octave
Faders	100mm Alps
Digital Effects	Stereo output
	16 presets
MIDI	Effects preset select
	Effects bypass
	Channel number = 1 (00H)

Amplifiers

Configuration	Class AB bipolar assisted MOSFET
Power output	500W + 500W rms music power into 4 ohms or 8 ohms
Constant power	Rear panel slide switch – Set for 4 or 8 ohms
Distortion	< 0.02% THD+N @1kHz
Limiter	Program dependent output sensing input clip limiter
Protection	short circuit, overload, DC, thermal cut out
Cooling	Twin variable speed fan, ducted heatsinks

Power Supply

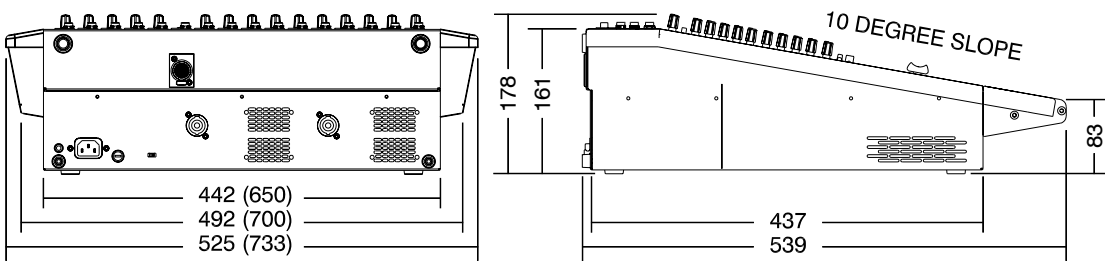
Internal linear power unit using toroidal transformer.

MAINS IN socket	IEC 3 pin
Power lead	Country dependent with moulded mains plug supplied
AC mains	100 to 240V AC @ 50/60Hz internally wired
Consumption	1600W max (peak)
Mains fuse rating	100-240V AC T10A 250V 20mm (A&H part number: AL3455)
	Manufacturer: Schurter Part number: 0034.3127

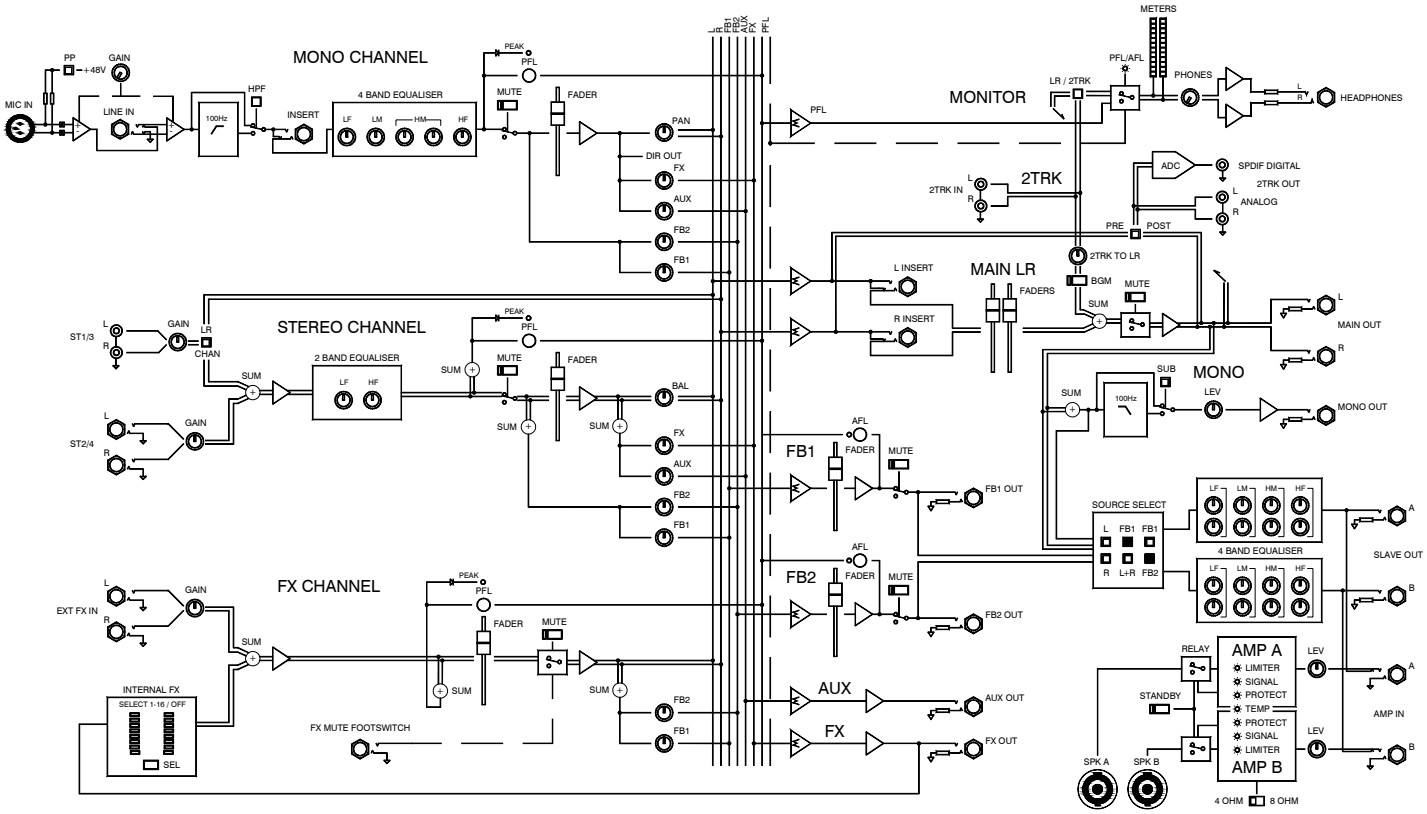
Mechanical

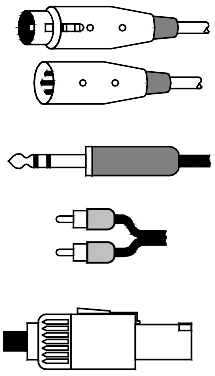
Mounting	Portable with carry handle, freestanding desk or floor
	19” rack ears provided with PA12-CP
	Rack ears mount in two positions - straight 10U, angled 11U
Panels	Controls 10 degrees, top connectors, rear mains and speaker connectors

	Width	Height	Depth	Weight
PA12-CP (desk)	525 mm (20.6”)	178 mm (7.0”)	539 mm (21.2”)	21 kg (46 lbs)
PA12-CP (rack)	484 mm (19.0”)	446 mm (17.6”)	178 mm (7”)	21 kg (46 lbs)
PA20-CP	733 mm (28.9”)	178 mm (7.0”)	53 9 mm (21.2”)	24 kg (53 lbs)



System Block Diagram





Connector Types

XLR connector :	Pin 2 = hot (+) Pin 3 = cold (-) Pin 1 = GND
TRS input and output connectors :	Tip = hot (+) Ring = cold (-) Sleeve = GND

Input Connections

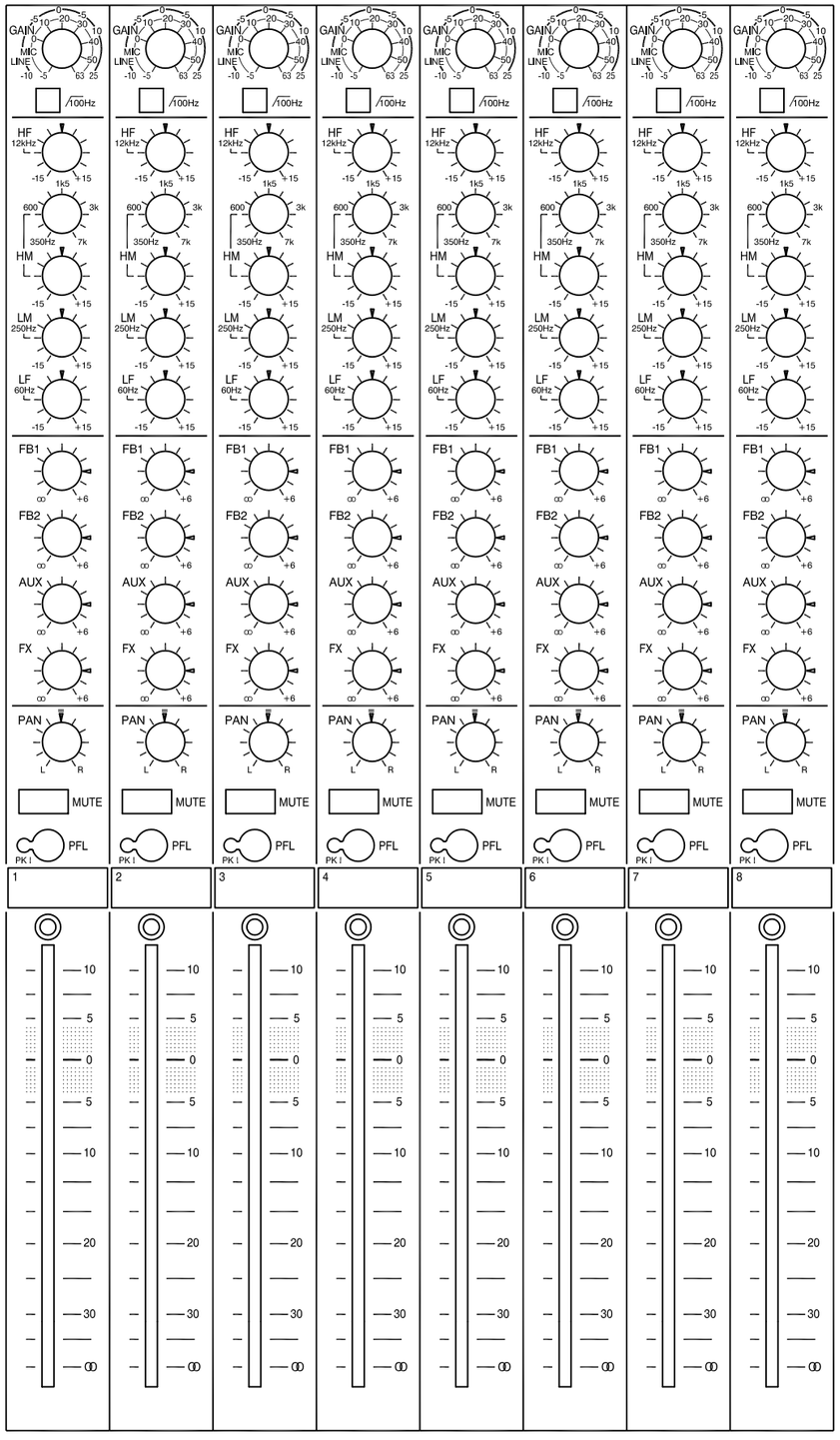
	Type	Impedance	Sensitivity
Mono MIC IN	Balanced XLR female	2k ohm	-63 to +5dBu
Mono LINE IN	Balanced TRS jack	>30k ohm	-25 to +10dBu
ST1,3 LINE IN L,R	Unbalanced RCA phono	>10k ohm	-10dBu max
ST2,4 LINE IN L,R	Unbalanced TRS jack	>10k ohm	-10dBu max
2-TRK IN L,R	Unbalanced RCA phono	>10k ohm	0dBu
EXT FX IN L,R	Unbalanced TRS jack	>10k ohm	0dBu
AMP IN	Unbalanced TRS jack	>10k ohm	0dBu

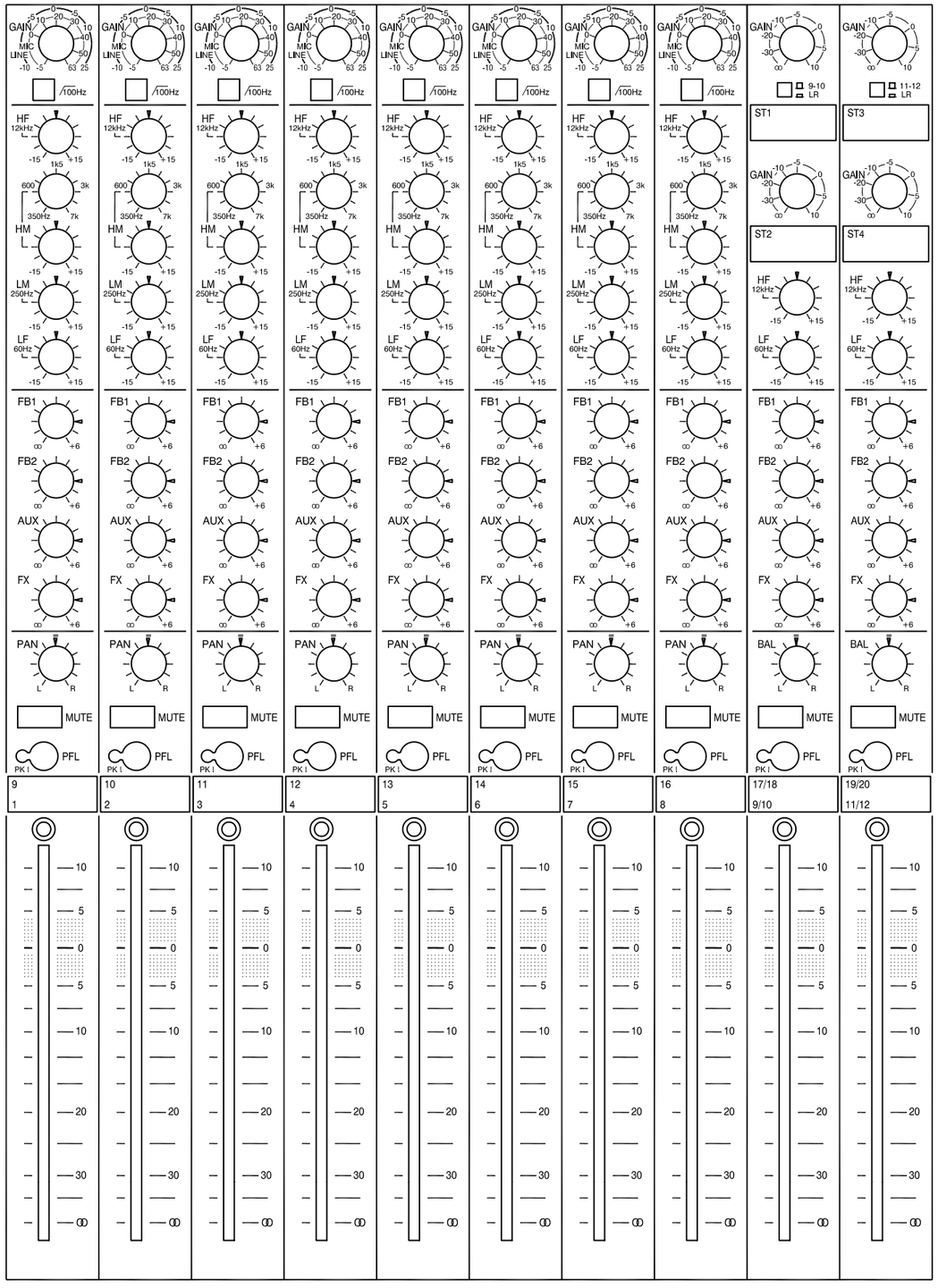
Output Connections

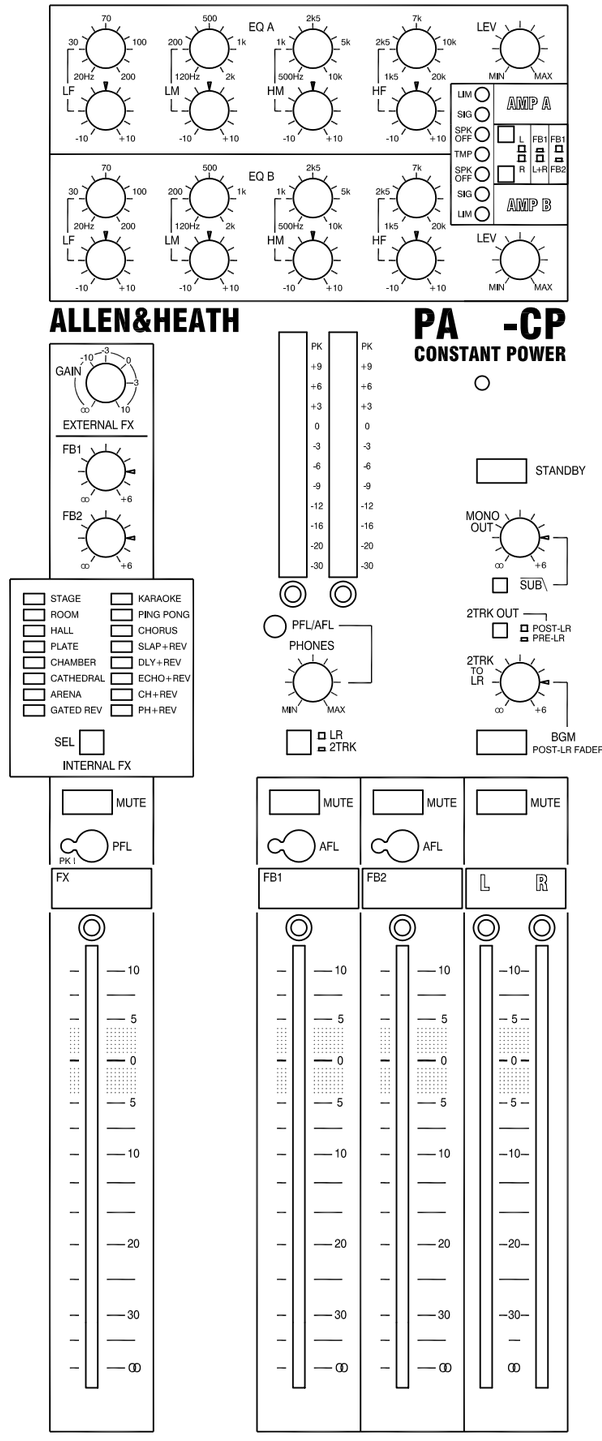
	Type	Impedance	Level
L, R, MONO,	Impedance balanced TRS jack	<75 ohm	0dBu
A, B SLAVE OUT	Impedance balanced TRS jack	<75 ohm	0dBu
FB1, FB2, AUX, FX OUT	Impedance balanced TRS jack	<75 ohm	0dBu
2TRK OUT	Unbalanced RCA phono	<75 ohm	0dBu
2TRK OUT (SPDIF)	RCA phono	75 ohm coax	digital
HEADPHONES	Tip = L Ring = R 30 to 600 ohm, 100 ohms recommended		
SPEAKER A, B	Speakon pin1+ = speaker positive, pin1- = speaker negative Minimum 4 ohms. Do not bridge or common the pins		

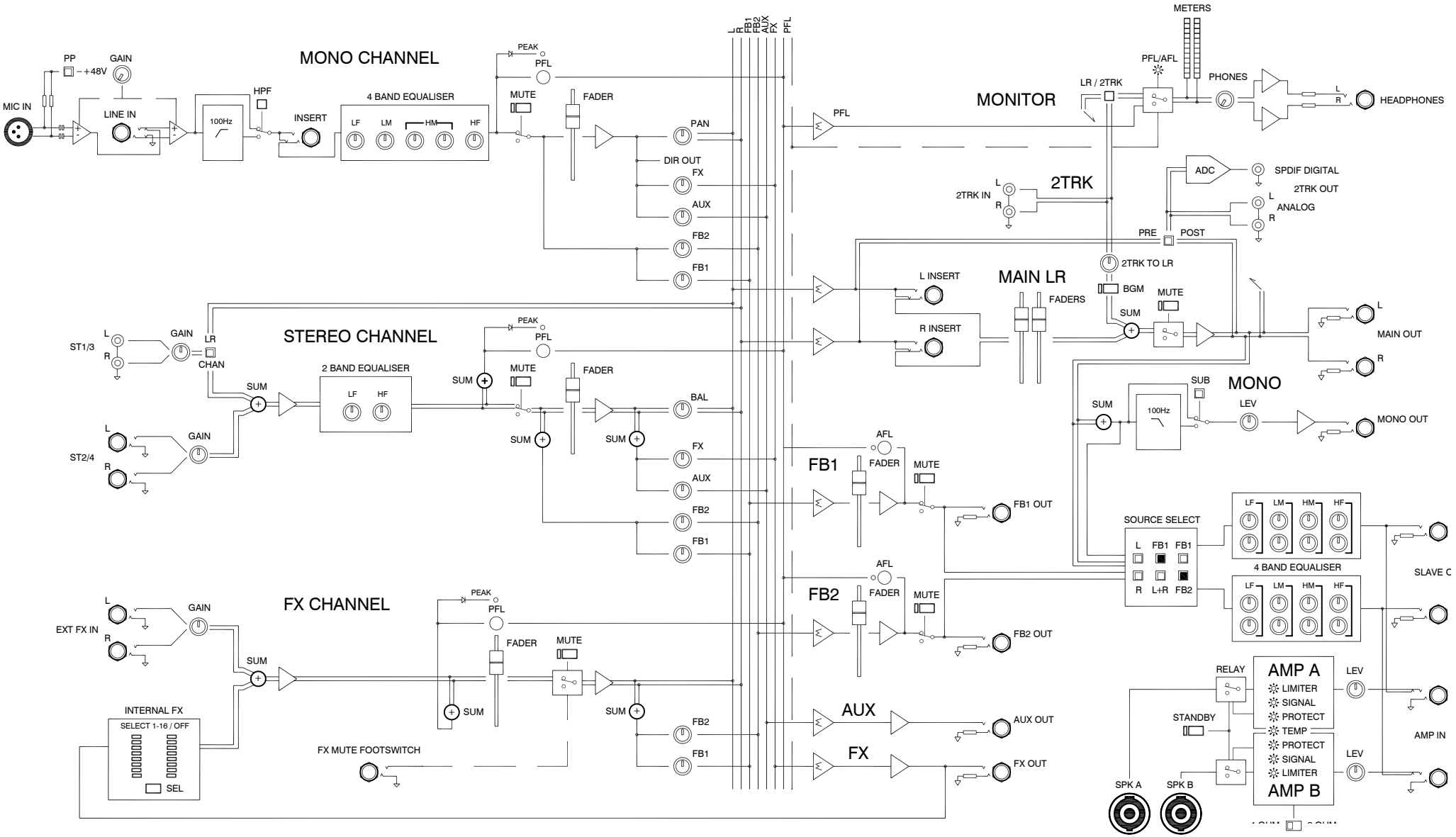
Insert Connections

	Type	Level
Channel, LR	Unbalanced TRS tip = send, ring = return	0dBu


GAIN
MIC
LINE
100Hz
HF
12kHz
1k5
3k
600
350Hz
7k
HM
LM
250Hz
LF
60Hz
FB1
FB2
AUX
FX
PAN
L
R
MUTE
PFL
PK
1
2
3
4
5
6
7
8
10
5
0
20
30
∞


GAIN
MIC
LINE
100Hz
HF
12kHz
1k5
3k
600
350Hz
7k
HM
LM
250Hz
LF
60Hz
FB1
FB2
AUX
FX
PAN
L
R
MUTE
PFL
PK
9-10
LR
11-12
LR
ST1
ST2
ST3
ST4
BAL
9
1
10
2
11
3
12
4
13
5
14
6
15
7
16
8
17/18
9/10
19/20
11/12
10
5
0
20
30
∞


EQ A
EQ B
LEV
LF
LM
HM
HF
70
30
100
20Hz
200
500
200
1k
120Hz
2k
2k5
1k
5k
500Hz
10k
7k
2k
10k
1k5
20k
MIN
MAX
LIM
SIG
SPK OFF
TMP
L
R
FB1
FB2
L+R
AMP A
AMP B
ALLEN&HEALTH
PA -CP
CONSTANT POWER
GAIN
EXTERNAL FX
FB1
FB2
STAGE
ROOM
HALL
PLATE
CHAMBER
CATHEDRAL
ARENA
GATED REV
KARAOKE
PING PONG
CHORUS
SLAP+REV
DLY+REV
ECHO+REV
CH+REV
PH+REV
SEL
INTERNAL FX
PK
+9
+6
+3
0
-3
-6
-9
-12
-16
-20
-30
PFL/AFL
PHONES
LR
2TRK
STANDBY
MONO OUT
SUB
2TRK OUT
POST-LR
PRE-LR
2TRK TO LR
BGM
POST-LR FADER
MUTE
PFL
FX
AFL
FB1
FB2
L
R
10
5
0
20
30
∞


MONO CHANNEL
PP
GAIN
+48V
MIC IN
LINE IN
HPF
100Hz
INSERT
4 BAND EQUALISER
LF
LM
HM
HF
PEAK
PFL
MUTE
FADER
PAN
DIR OUT
FX
AUX
FB2
FB1
L
R
FB1
FB2
AUX
FX
PFL
STEREO CHANNEL
ST1/3
ST2/4
GAIN
LR
CHAN
SUM
2 BAND EQUALISER
BAL
FX CHANNEL
EXT FX IN
INTERNAL FX
SELECT 1-16 / OFF
SEL
FX MUTE FOOTSWITCH
AFL
FB1
FB2
AUX
FX
FB1 OUT
FB2 OUT
AUX OUT
FX OUT
MONITOR
LR / 2TRK
PFL/AFL
METERS
PHONES
HEADPHONES
2TRK
2TRK IN
ADC
SPDIF DIGITAL
2TRK OUT
ANALOG
PRE
POST
2TRK TO LR
MAIN LR
L INSERT
R INSERT
FADERS
BGM
MUTE
SUM
MAIN OUT
MONO
SUB
LEV
100Hz
MONO OUT
SOURCE SELECT
L
FB1
R
L+R
FB2
4 BAND EQUALISER
SLAVE C
AMP IN
RELAY
AMP A
LIMITER
SIGNAL
PROTECT
TEMP
STANDBY
AMP B
SPK A
SPK B