

 **SPIRIT®**





P R O F E S S I O N A L M I X E R

**INSTRUCTION MANUAL**  
**KING** **PROFESSIONAL MIXER**  
-416/424/432

## IMPORTANT SAFETY INSTRUCTIONS

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.		

	The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on this apparatus.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
9. Only use attachments/accessories specified by the manufacturer.
10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus (including amplifiers) has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
11. To completely disconnect mains power from this apparatus, the power supply cord must be unplugged.


### **For US and CANADA only:**

**Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet**

### IMPORTANT SERVICE INSTRUCTIONS

**CAUTION: These servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the Operating Instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.**

1. Security regulations as stated in the EN 60065 (VDE 0860) and the CSA E65 - 94 have to be obeyed when servicing the appliance.
2. Use of a mains separator transformer is mandatory during maintenance while the appliance is opened, needs to be operated and is connected to the mains
3. Switch off the power before retrofitting any extensions, changing the mains voltage or the output voltage.
4. The minimum distance between parts carrying mains voltage and any accessible metal piece (metal enclosure), respectively between the mains poles has to be 3 mm and needs to be minded at all times.  
The minimum distance between parts carrying mains voltage and any switches or breakers that are not connected to the mains (secondary parts) has to be 6 mm and needs to be minded at all times.
5. Replacing special components that are marked in the circuit diagram using the security symbol (Note) is only permissible when using original parts.
6. Altering the circuitry without prior consent or advice is not legitimate.
7. Any work security regulations that are applicable at the location where the appliance is being serviced have to be strictly obeyed. This applies also to any regulations about the work place itself.
8. All instructions concerning the handling of MOS - circuits have to be observed.

Note:  SAFETY COMPONENT (HAS TO BE REPLACED WITH ORIGINAL PART ONLY)

***ATTENTION!***

The following special limitations apply to the console and must be observed in order to maintain safety and electromagnetic compatibility performance:

***POWER CONNECTION***

The console should only be operated with the power supply connected to ground via its mains supply the connector.

***AUDIO CONNECTIONS***

The console should only be operated with high quality screened twisted pair audio cables. All connector shells should be of metal construction so that they provide a screen when they are plugged into the console. All JACK connector shells should be connected to the cable screen. All XLR connectors should have pin 1 connected to the cable screen.

***ELECTRIC FIELDS***

If the console is operated in an electromagnetic field that is amplitude modulated by an audio frequency signal, the signal to noise ratio may be degraded. Degradation of up to 60dB may be experienced under extreme conditions (3V/m, 90% modulation).

***INSTALLATION***

There are a number of points to consider when installing a mixing console. Many of these points will have been addressed before the console is even unpacked but it is worth repeating them.

***POSITION***

The console should be located in a convenient space commensurate with the use to which the console is being put. Ideally a cool area is preferred not in close proximity to power distribution equipment or other potential sources of interference. Provision should be made for some flat surface surrounding the console to prevent people using it as a table top.

***MAINS VOLTAGE SETTING***

The console is shipped with a specified mains voltage setting. If the mains voltage is ever changed by the mains voltage selector at the rear of the external power supply, the mains fuse has to be changed as well to the rating matching the selected voltage on the label.

**THE EXTERNAL POWER SUPPLY SHOULD NEVER BE OPERATED WITH THE MAINS EARTH DISCONNECTED**

Please note that the power supply contains LETHAL VOLTAGES and that its rails can produce extremely large currents which could burn out equipment and wiring if shorted. All testing and servicing should ONLY be carried out by qualified engineers.

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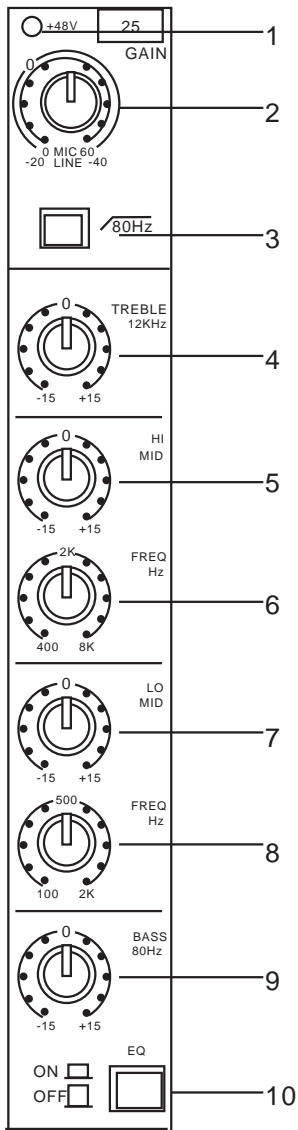
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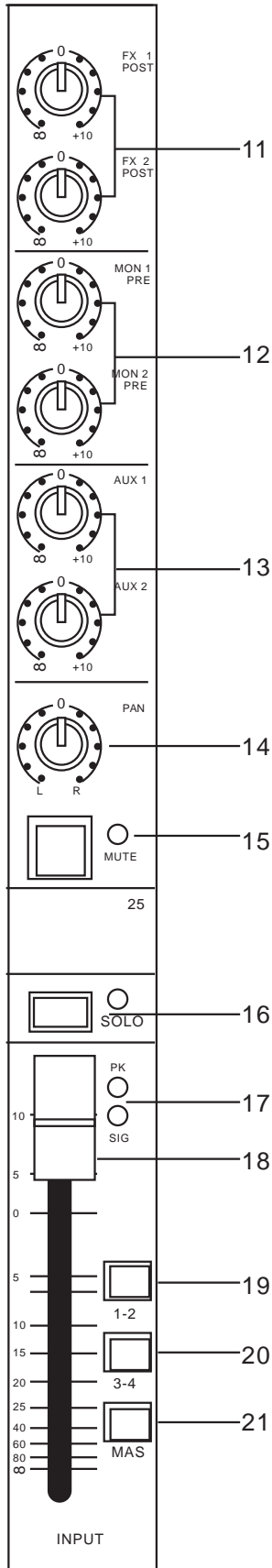
# MONO INPUT CHANNEL



The KING Mono Channel is equipped with an XLR input, which can be used for Mic or Line level signal sup to +22dBu. An additional 1/4 inch jack socket, provides an input for line level signals, which require protection against accidental 48 volt connection KING The Line input gives 20dB of permanent attenuation to the input signal which will allow the connection of extreme high line level signals up to +42dBu.

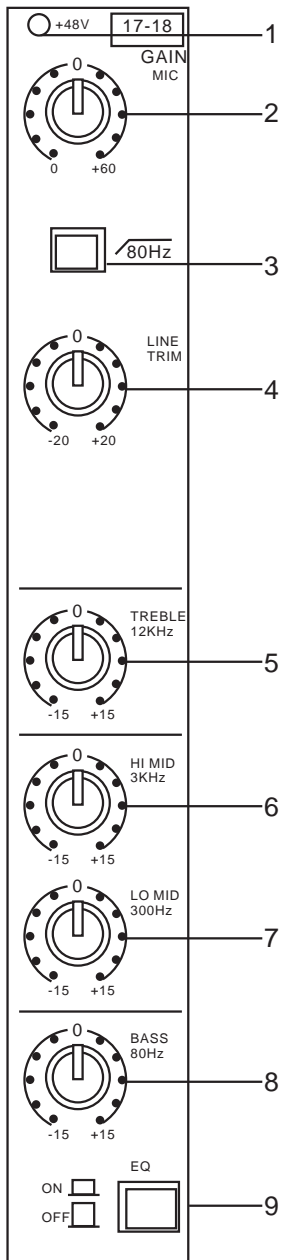
1. The +48V led monitors if phantom power is assigned. The +48V switch for each channel is placed on the rear-panel of the console. It connects +48V phantom power to the XLR input connector. This is suitable for a condenser microphone or DI Box.
2. The GAIN control gives continuous adjustment of the input amplifier gain from 0dB to +60dB for the Mic input and - 20dB to + 40dB for the Line Input.
3. The HI PASS switch connects the 80Hz hi-pass-filter in the input channel signal path before the insert point and equaliser.
4. The TREBLE control gives continuous adjustment of boost and cut from -15dB to +15dB with a 0dB centre detent. The treble equaliser acts on 12kHz .
5. The HI MID control gives continuous adjustment of boost and cut from -15dB to+ 15dB with a 0dB centre detent.
6. The HI MID FREQ control gives continuous adjustment of the frequency range that the hi mid equaliser acts on from 400Hz to 8kHz with a 1 octave bandwidth.
7. The LO MID control gives con tenuous adjustment of boost andcut from -15dB to + 15dB with a 0dB centre detent.
8. The LO MID FREQ control gives continuous adjustment of the frequency range that the lo mid equaliser acts on from 100Hz to 2kHz with a 1 octave bandwidth.
9. The BASS control gives continuous adjustment of boost and cut from -15dB to +15dB with a 0dB centre detent. The bass equaliser acts on 80Hz.
10. The EQ switch connects the equaliser in the input channel signal Path.

# MONO INPUT CHANNEL



11. The FX controls give continuous adjustment of the post fader level sent from the input channel to the FX busses. The level adjustment is from +10dB to off with 0dB at the centre position of the rotary Control.
12. The MON controls give continuous adjustment of the prefader and pre-equaliser signal sent from the input channel to the MON busses. The level adjustment is from + 10dB to off with 0dB at the centre position of the rotary control.
13. The AUX controls give continuous adjustment of the level sent from the input channel to the AUX busses. The level adjustment is from + 10dB to off with 0dB at the centre position of the rotary control. AUX1 and 2 can be configured globally for pre- or post-fader operation by pressing the PRE/POST switch on the appropriate AUX-rail in the master Section.
14. The PAN controls the channel placement within the master stereo or group mix and has a constant power law. i.e. - 3dB at the centre position and 0dB or off at either extreme setting.
15. The MUTE switch mutes the input channel at all points after the insert send, including all auxiliary Sends.
16. The SOLO switch sends the input channel signal to the PFL /mono-and AFL / stereo busses. If the switch is engaged, the mon1/2 meters are automatically used for solo metering.
17. The SIGNAL (-16dBu) / PEAK(+16dBu) display monitors the peak signal level of the pre fader input channel.
18. The FADER gives continuous adjustment of the input channel level from +10dB to off.
19. The 1-2 switch connects the post fader channel signal to the group 1-2 busses via the pan control.
20. The 3-4 switch connects the post fader channel signal to the group 3-4 busses via the pan control.
21. The MAS switch connects the post fader channel signal to the master stereo bus via the pan control.

# STEREO INPUT CHANNEL

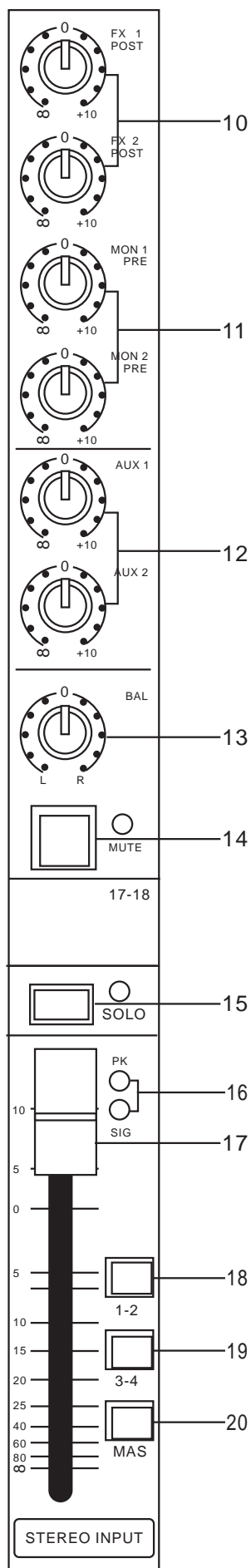


The KING stereo input channel is equipped with an XLR input which can be used for Mic or Line level signals up to +22dBu. Two additional 1/4 inch jack sockets, provide an input for Stereo- or Mono Line level signals up to +28dBu. The stereo channel features the same hi-value microphone pre-amp as the mono channel. Because the stereo input channel uses independent circuits for Mic and Stereo Line, it is possible to have all inputs connected at the same time, without interference.

1. The +48V switch for each channel is positioned at the rear panel of the console. It connects +48 V phantom power to the XLR input connector. This is suitable for a condenser microphone or DI Box.
2. The MIC GAIN control gives continuous adjustment of the input amplifier gain from 0dB to + 60dB for the Mic input.
3. The HI PASS switch connects the the 80Hz hi-pass-filter in the input channel signal path right after the mic input amplifier.
4. The LINE TRIM control gives continuous adjustment of the stereo input amplifier gain from -20dB to + 20dB for the Stereo Line input.
5. The TREBLE control gives continuous adjustment of boost and cut from -15dB to +15dB with a 0dB centre detent. The treble equaliser acts on 12kHz.
6. The HI MID control gives continuous adjustment of boost and cut from -15dB to +15dB with a 0dB centre detent. The HI MID equaliser acts on 3kHz with a 1.4 octaves bandwidth.
7. The LO MID control gives continuous adjustment of boost and cut from -15dB to +15dB with a 0dB centre detent. The LO MID equaliser acts on 300Hz with a 1.4 octaves bandwidth.
8. The BASS control gives continuous adjustment of boost and cut from -15dB to +15dB with a 0dB centre detent. The bass equaliser acts on 80Hz.
9. The EQ switch connects the equaliser in the input channel signal Path.



# STEREO INPUT CHANNEL



10. The FX controls give continuous adjustment of the level sent from the input channel to the FX busses. The level adjustment is from + 10dB to off with 0dB at the centre position of the rotary control. The FX controls are connected post-fader and send the mixed left/right signal to the FX Busses.

11. The MON controls give continuous adjustment of the level sent from the input channel to the MON busses. The level adjustment is from + 10dB to off with 0dB at the centre position of the rotary control. The MON controls are connected prefader, pre equaliser and send the mixed left/right signal to the MON bus-Ses.

12. The AUX controls give continuous adjustment of the mixed left/right signal level sent from the input channel to the AUX busses. The level adjustment is from + 10dB to off with 0dB at the centre position of the rotary control. AUX1 and 2 can be configured globally for pre- or postfader operation by pressing the PRE/POST switch on the appropriate AUX-rail in the master section.

13. The BAL (pan) control is used to balance the relative levels of the left and right channel signals that are sent to the masters or groups. The control has a constant power law, i.e. -3dB at the centre position and + 0dB or off at either extreme setting. If the Stereo channel used as mono input, the BALANCE (pan) controls the channel placement within the master stereo- or group mix.

14. The MUTE switch mutes the input channel at all points, including all auxiliary sends.

15. The SOLO switch sends the input channel signal to the PFL/ mono and AFL/ stereo busses. If the switch is engaged, the mon1/2 meters are automatically used for solo metering.

16. The SIGNAL (-16dBu) / PEAK (+16dBu) display monitors the peak signal level of the pre fader input channel.

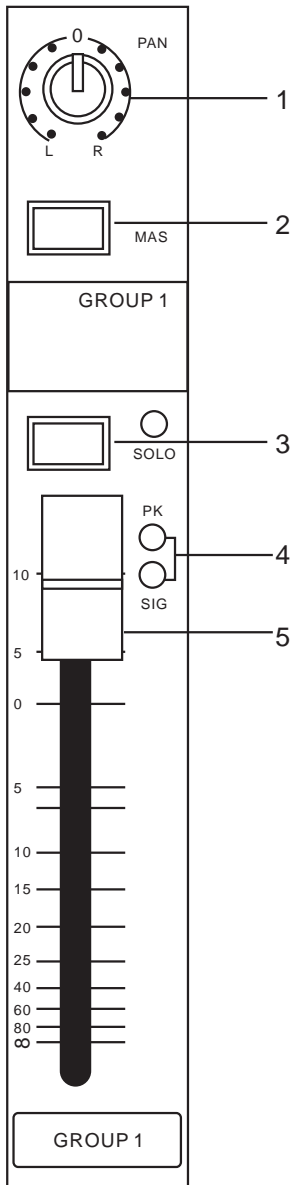
17. The FADER gives continuous adjustment of the input channel level from +10dB to off.

18. The 1-2 switch connects the post fader channel signal to the group 1-2 busses via the bal (pan) control

19. The 3-4 switch connects the post fader channel signal to the group 3-4 busses via the pan control.

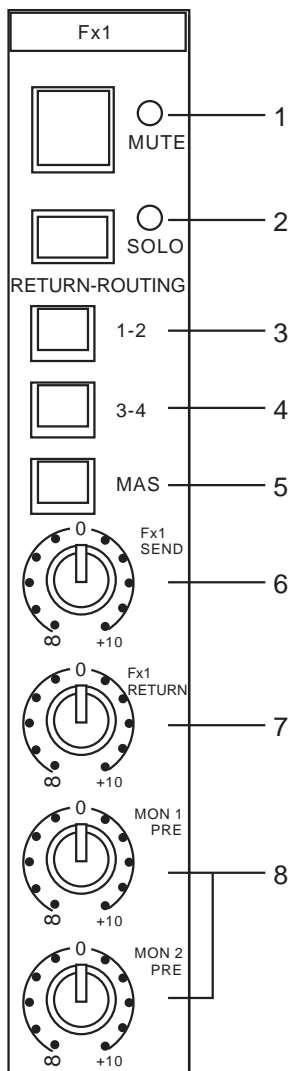
20. The MAS switch connects the post fader channel signal to the master stereo bus via the pan control.



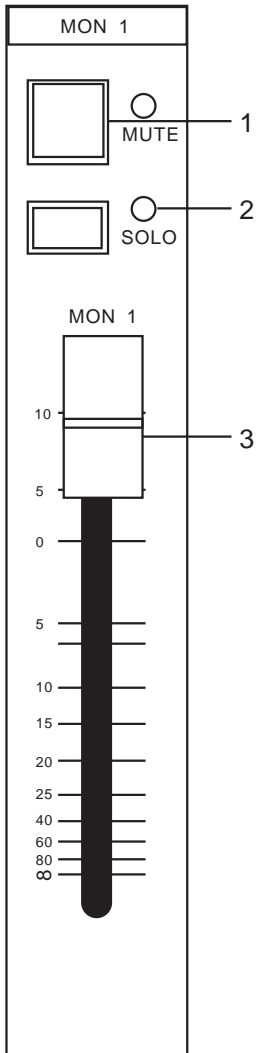


1. The PAN controls the group placement within the master stereomix and has a constant power law i. e. -3dB at the centre position and 0dB or off at either extreme Setting.
2. The MAS switch connects the post fader group signals to the stereo master bus via the pan Control.
3. The SOLO switch sends the group signal to the PFL / mono and AFL / stereo busses. If the switch is engaged the mon meters are automatically used for solo metering
4. The SIGNAL (-16dBu) PEAK (+16dBu) display monitors the signal level of the group bus.
5. The GROUP faders give continuous adjustment of the sub group output levels from +10dB to off.

# MASTER SECTION



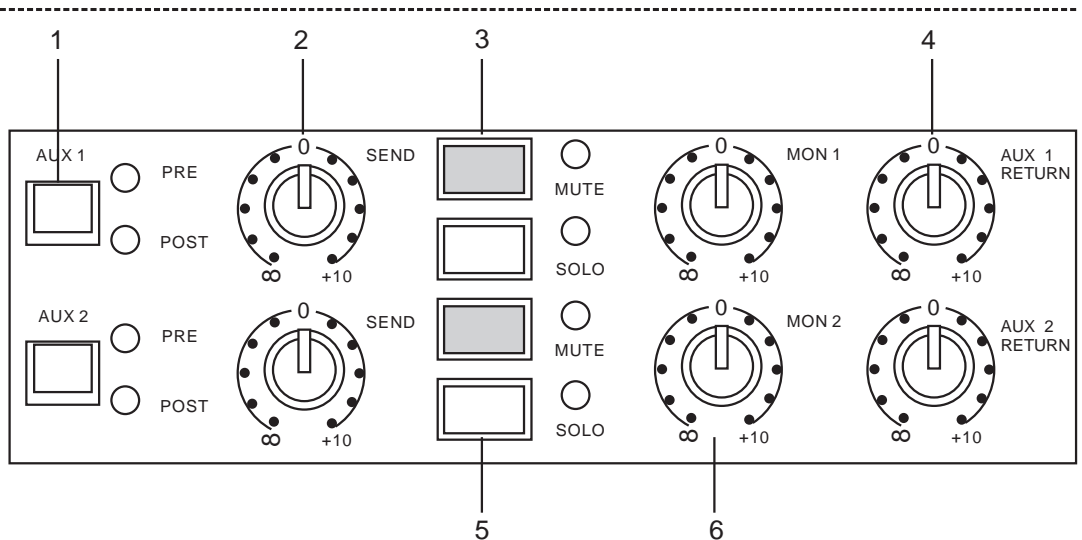
1. The MUTE switch mutes the Fxreturn at all points.
2. The SOLO switch sends the Fxreturn signal to the PFL / mono and AFL / stereo busses. If the switch is engaged the mon 1 / 2 meters are automatically used for solo metering
3. The 1-2 switch connects the post fader FX- return left signal to the group 1 bus and right signal to the group 2 bus.
4. The 3-4 switch connects the post fader FX- return left signal to the group 3 bus and right signal to the group 4 bus.
5. The MAS switch connects the post fader FX- return stereo signal to the stereo master bus
6. The FX SEND control gives continuous adjustment of the FX send output level from +10dB to off with 0dB at the centre position of the rotary control.
7. The FADER gives continuous adjustment of the FX- return level from +10dB to off.
8. The MON controls give continuous adjustment of the pre- fader signal sent from the Fxreturn channel to the MON busses. The level adjustment is from + 10dB to off with 0dB at the centre position of the rotary control.



1. The MUTE switch mutes the monitor send output signal.

2. The SOLO switch routes the monitor send signal to the PFL/ mono and AFL/ stereo busses. If the switch is engaged, the mon 1/2 meters are automatically used for solo metering.

3. The MON SEND fader gives continuous adjustment of the monitor send signal from +10dB to off.



1. The global AUX PRE/POST switch configures the aux bus either in pre-fader (mon) or post-fader (fx) operation. The LEDs next to the switch provide indication of status.

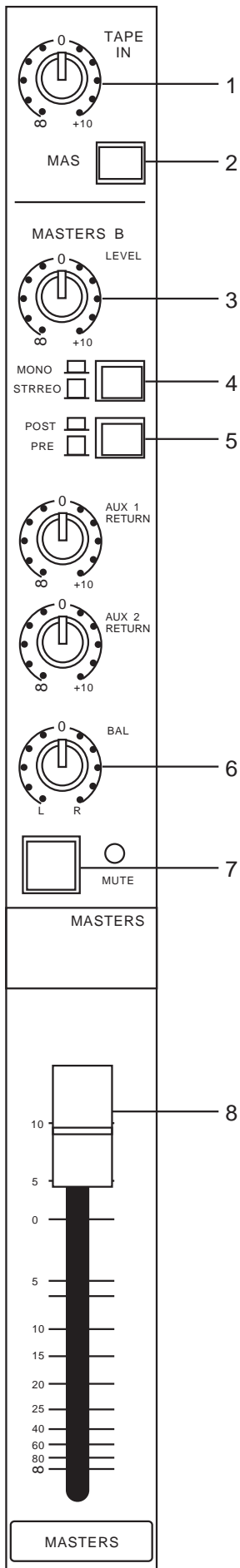
2. The AUX SEND control gives continuous adjustment of the aux send output level from +10dB to off with 0dB at the centre position of the rotary Control.

3. The MUTE switch mutes the aux send output signal. It does not affect the aux return.

4. The AUX RETURN control gives continuous adjustment of the stereo aux return level from +10dB to off with 0dB at the centre position of the rotary control. The aux return signals are directly routed to the L/R master Busses.

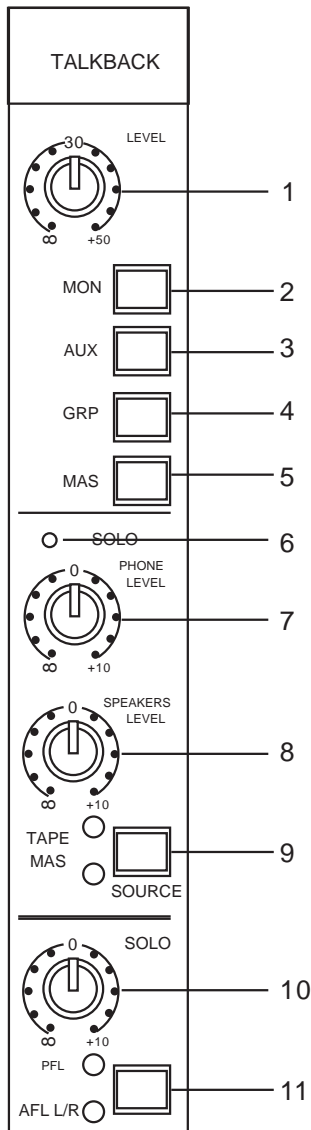
5. The SOLO switch routes the aux send signal to the PFL/ mono and AFL/ stereo busses. Whenever a solo switch is engaged the man 1/2 display is automatically used for solo metering.

6. The MON controls give continuous adjustment of the level sent from the aux return to the MON busses. The level adjustment is from +10dB to off with 0dB at the centre position of the rotary control.

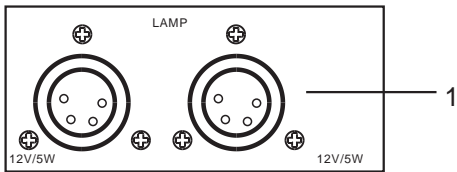


1. The TAPE inputs provide a feed from an unbalanced phono source to the stereo master busses or to phones and speakers outputs. The TAPE IN level control provides nominal adjustment from +20dB to off with 0dB at the centre position of the rotary control.
2. The MAS switch connects the TAPE IN signal to the master L/R busses right after the master mute switch. This allows i. e.background music during a show, even when the master mute switch is engaged. The MAS switch should be off during recording via TAPE OUT.
3. The MASTERS B rotary control gives continuous adjustment of the masters B (stereo/mono) output level from +10dB to off with 0dB at the centre position of the rotary control.
4. By the STEREO/MONO switch the Master B outputs can be configured in two modes. In STEREO mode the master b outputs are fed with the stereo left and right mix signals. In Mono mode they are fed with the summed left and right mix signal.
5. The PRE/POST switch changes the signals sent to the masters b outputs from pre master fader to post master fader.
6. The BAL control is used to balanced the relative levels of the left and right master signals that are sent to the masters outputs. The control has a constant power law, i. e. 0dB at the centre position and +3dB or off at either extreme Setting.
7. The MUTE switch mutes all signals sent to master and master b outputs. Only the Tape In signal to masters is not affected by the MUTE switch.
8. The stereo Fader gives continous adjustment of the left and right mix levels from +10dB to off.

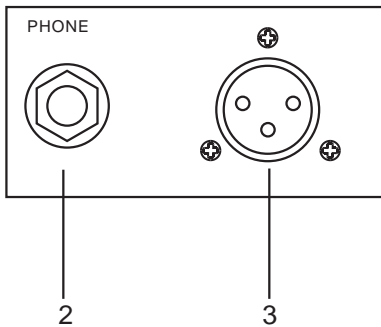
# MASTER SECTION



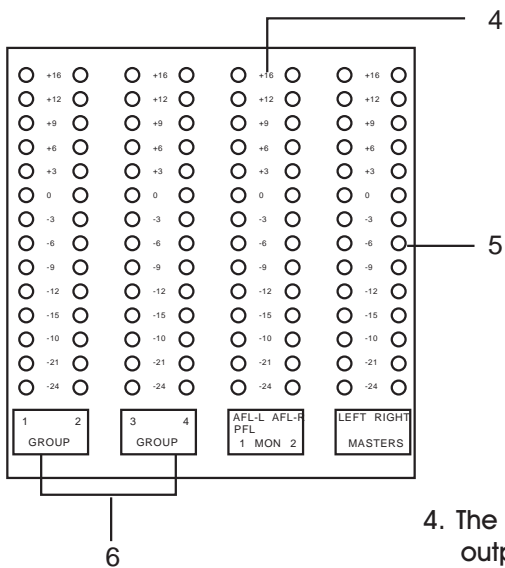
1. The talkback LEVEL control gives continuous adjustment of the talkback signal from +50dB to off. The talkback input accepts a maximum input level of +8dBu.
2. The non-latching MON switch connects the talkback mic to mon1 and mon2 busses.
3. The non-latching AUX switch connects the talkback mic to aux1 and aux2 pre-busses.
4. The non-latching GRP switch connects the talkback mic to all group busses.
5. The non-latching MAS switch connects the talkback mic to left and right master busses.
6. Whenever a solo button is engaged the SOLO led turns on and the mon 1/2 metering is automatically used as solo meter.  
  
In pfl-mode the mon1 meter displays the signal level in dBu of the selected solo source at the pre- fader position.  
  
In afl-mode the mon1 (afl-l) and mon2 (afl-r) meters are active and display the signal levels in dBu in the stereo image at the after- fader position.
7. The PHONES level control gives continuous adjustment of the level from +10dB to off at the phones output .
8. The SPEAKERS level control gives continuous adjustment of the signal at the speakers left and right output from +10dB to off with 0dB at the centre position of the rotary control.
9. The SOURCE switch controls whether the tape in or master signal is present at the headphones and control room speaker outputs, if no solo button is engaged.
10. The SOLO control adjusts the incoming solo level before sending it to the headphones and speaker outputs. The control range is -20dB to +20dB with 0dB in centre position.
11. If a solo button is engaged the PFL / AFL switch controls whether the mono pre fader listen or the stereo after fader listen signal is present at the headphones and control room speaker outputs.



1. A convenient connection for two 12V desk lamps is provided via the 4pin-female XLR connectors. The power rating 5W is the maximum rating per output and may not be Exceeded.

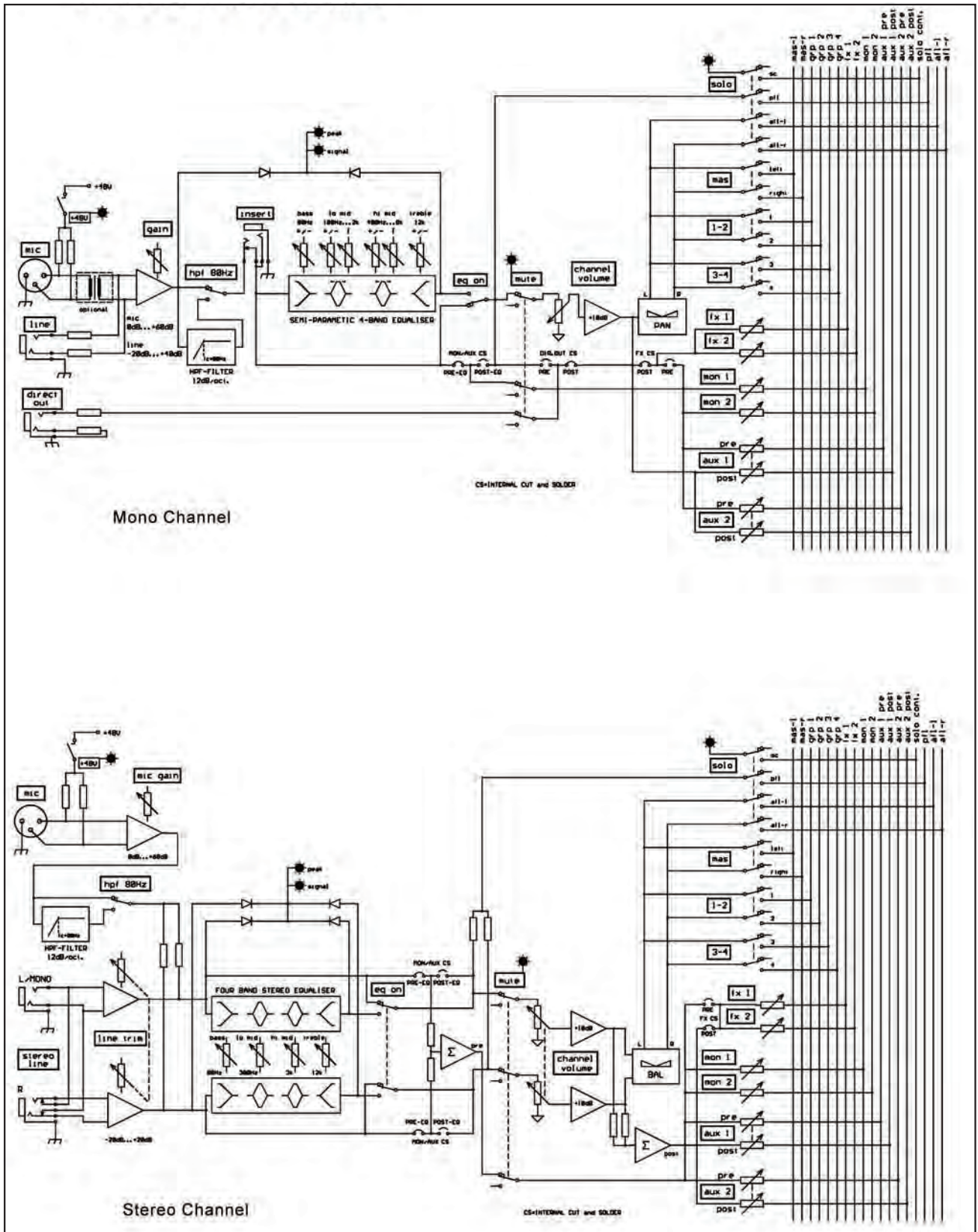


2. The 1/4 inch jack sockets provide stereo outputs for one PHONES. Output are controlled via the phones rotary control.
3. The input for a TALKBACK Microphone is provided via a 3pinfemale XLR connector. The +48V Phantom power is permanently connected which is suitable for condenser microphones.

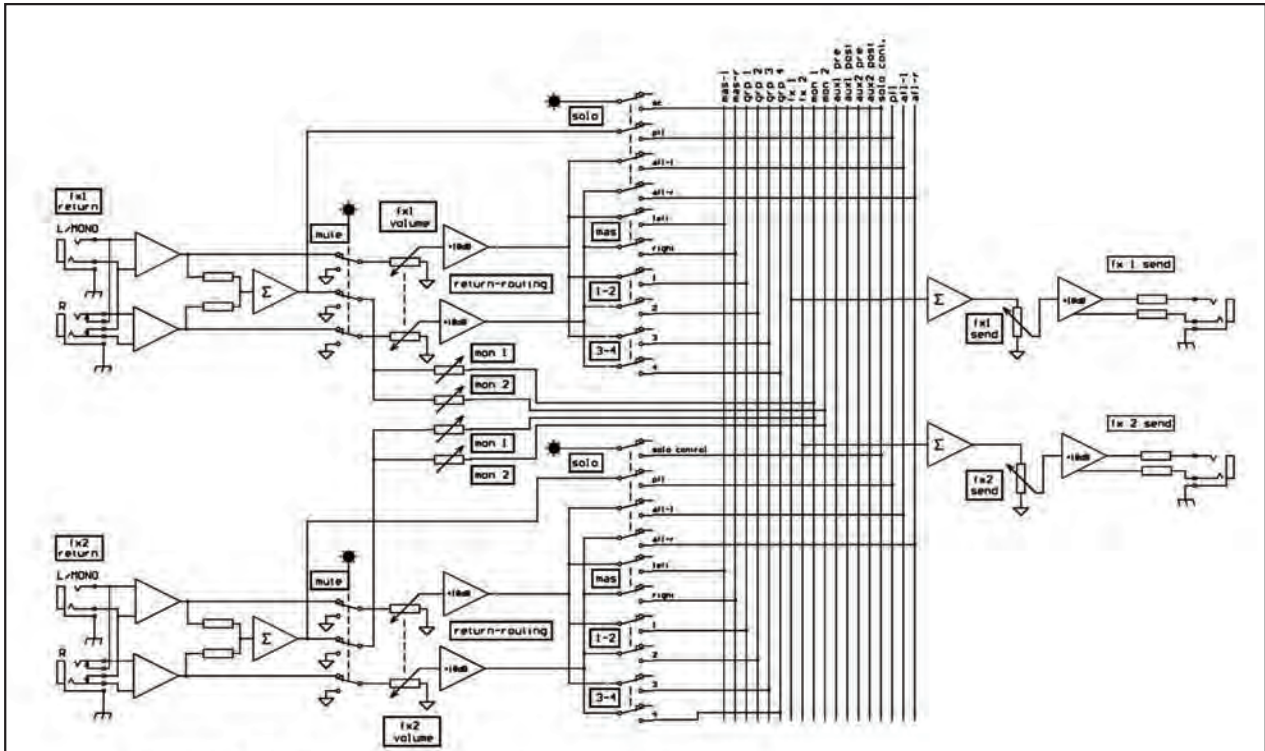


4. The MON meters display the post fader peak signal levels of the monitor outputs. Whenever a solo button is engaged the meter displays the peak signal levels of the selected pfl or afl solo source.
5. The MASTER meters monitor the peak signal levels of the master outputs left and right (post Fader).
6. The groups metres monitor the peak signal levels of the group outputs.

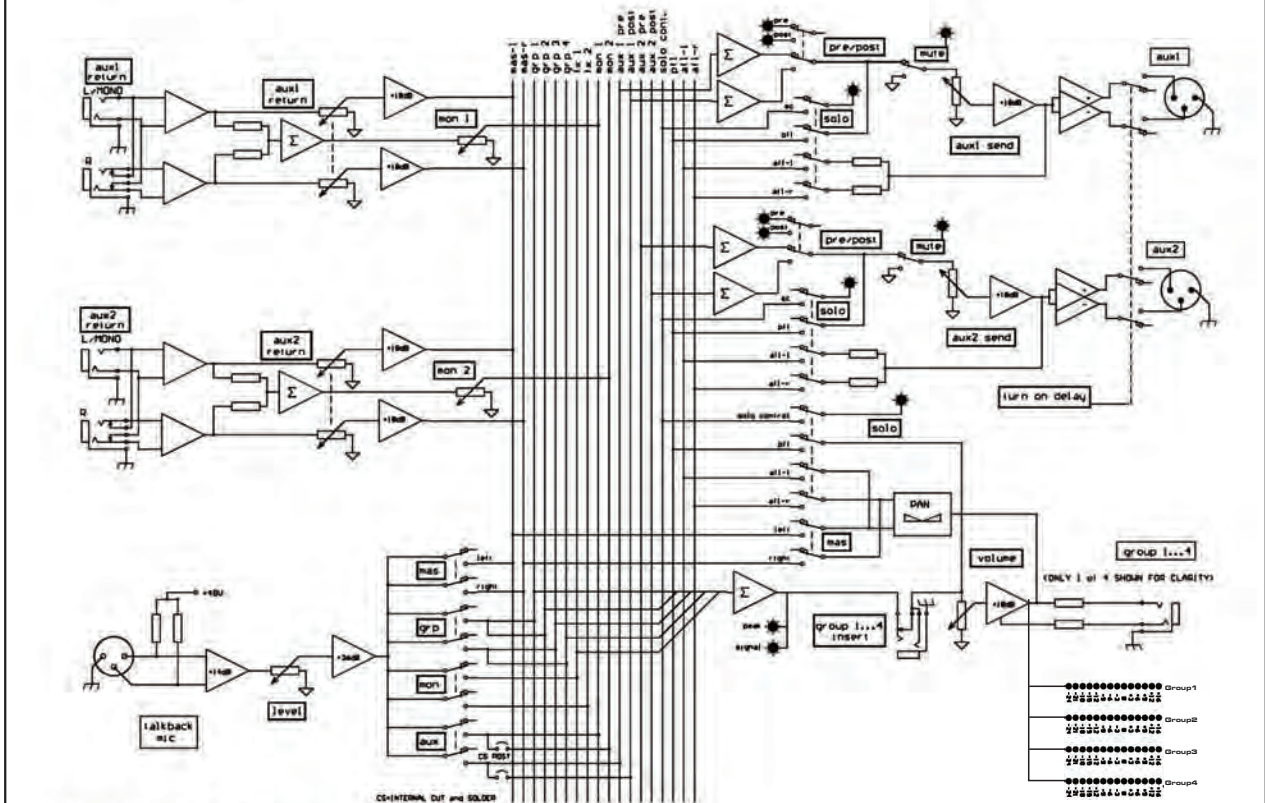
# CONSTRUCTIONAL DRAWINGS





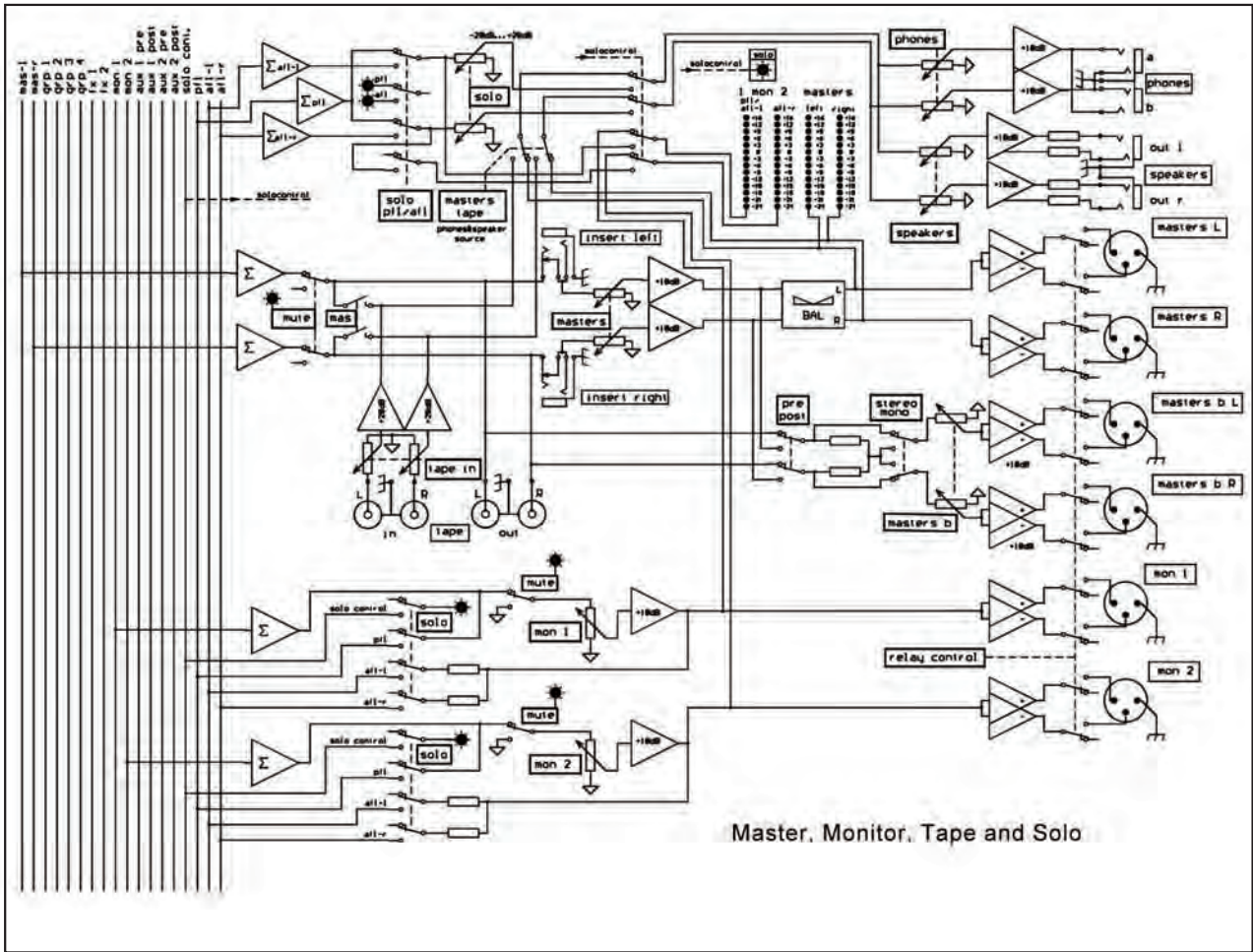


FX-send, FX-return



Aux, Groups and Talkback

# CONSTRUCTIONAL DRAWINGS



Master, Monitor, Tape and Solo

Features and Specifications	KING-416	KING-424	KING-432
<b>Inputs (total)</b>	30	38	46
Mono-Inputs (Mic/Line) with Inserts	8	16	24
Stereo-Line/Mono-Mic-Input Channels	4/4	4/4	4 / 4
Stereo-Effect>Returns (Line)	4	4	4
Stereo-Tape-Return (Line)		1 left/right	
<b>Busses</b>		15	
Subgroups		4	
Aux Pre-Fader (Monitor)		2	
Aux Post-Fader (Effects)		2	
Aux switchable Pre/Post-Fader		2	
Master L/R		2	
Mono-PFL		1	
Stereo-AFL		2	
<b>Outputs</b>			
Subgroups (with Inserts)		4 impedance balanced 1/4 inch jacks	
Aux Pre-Fader (Monitor)		2 XLR (balanced)	
Aux Post-Fader (Effects)		2 impedance balanced 1/4 inch jacks	
Aux switchable Pre/Post-Fader		2 XLR (balanced)	
Master (with Inserts)		2 XLR (balanced)	
Master B Out		2 XLR (balanced)	
(switchable Mono/Stereo, pre-postFader)			
Tape Send (Recording)		1 Stereo (Phono)	
Direct Outputs (1/4 inch Jack)	8	16	24
Stereo-Headphones		2 Stereo-1/4 inch jack	
Stereo-Speakers		2 impedance balanced 1/4 inch jacks	
<b>Size (mm/inch)</b>		<b>Size (mm/inch)</b>	
Width	490/19.3"	698 / 27.5"	906/35.7"
Depth	568/22.4"	568 / 22.4"	568/22.4"
Heights	194/7.6"	194 / 7.6"	194/7.6"
<b>Weight (kg)</b>	14.5	19.2	24
<b>Power Consumption</b>	100W	120W	150W
<b>Mains Voltage</b>		220V~240V	
<b>Additional Features</b>			
Connector for deskclamps		2 x 12V/5W(4-Pin XLR)	
External Power Supply	Yes	Yes	Yes
<b>Accessories</b>		External power supply 12V Desk lamp(not included)	

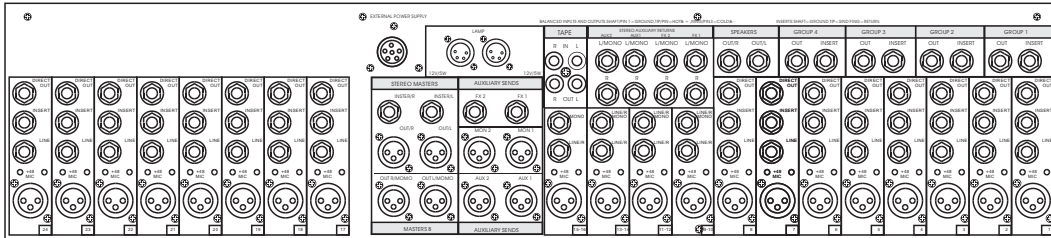
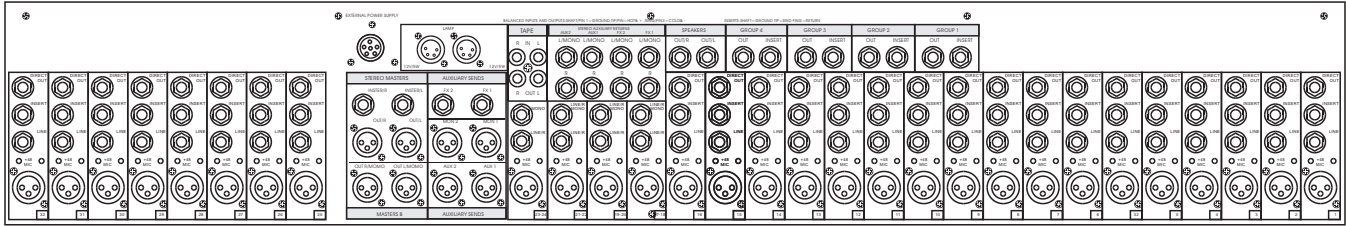
# CONSTRUCTIONAL DRAWINGS

Input Impedance	Mic	2k Balanced
	Line	20k Balanced
Input Gain	Mic	Continuously variable from 0dB to + 60dB
	Line Mono Channel	Continuously variable from - 20dB to + 40dB
	Line Stereo Channel	Continuously variable from - 20dB to + 20dB
	Line Level Inputs	0dB
Maximum Input Level	Mic	+ 22dBu
	Line Level Inputs	+ 22dBu
	Line Mono Channel	+ 42dBu
	Line Stereo Channel	+ 28dBu
CMR at 100Hz	Mic (gain + 40dB)	Typ. 75dB
CMR at 1kHz	Mic (gain + 40dB)	> 85dB
	Line	> 45dB
Frequency Response (20 to 20kHz)	Mic to Mix (gain + 60dB)	+ 0dB to - 1dB
Noise (20 to 20kHz)	Mic EIN ref. 150ohms (gain + 60dB)	- 129dBu
	Line	
System Noise (20 to 20kHz)	Summing Noise (16 channels routed with faders down)	- 90dBu
	Line to Mix Noise (16 channels routed at 0dB, pan centre)	- 86dBu
Distortion at 1kHz	Mic to Insert (+ 30dB gain, + 20dBu output)	Typ 0.0007%
	Mic to Mix (+ 30dB gain, + 20dBu output)	0.009%
Crosstalk at 1kHz	Channel to Channel	< - 80dB
	Mix to Mix	< - 80dB
	Channel to Mix	< - 80dB
	Fader Attenuation	> 100dB
	Switch Rejection	> 100dB
Output Impedance	All Line Outputs	75 Ohms Balanced Source
	Headphones	To drive 32ohms 32ohms
Maximum Output Level	Master Outputs on XLR	+ 25dBu
	All other Outputs on XLR	+ 22dBu
	All Outputs on 1/4 inch jacks	+ 22dBu
	Headphones	+ 22dBu/600ohms
Nominal Signal Level	Mic	- 60dBu to 0 dBu
	Line	0dBu
Equaliser Mono Channel	Hi Pass Slope	12dB / Oct
	Hi Pass Frequency	80Hz
	Treble Gain	Treble Gain Continuously variable + 15 dB to - 15 dB Centre detent = 0dB
	Treble Frequency	12k
	Hi Mid Gain	Continuously variable + 15 dB to - 15 dB Centre detent = 0dB
	Hi Mid Frequency	Continuously variable Centre from 400Hz to 8k
	Hi Mid Bandwith	1 Oct. (Q = 1.4)
	Lo Mid Frequency	Continuously variable + 15 dB to - 15 dB Centre detent = 0dB
	Lo Mid Bandwith	1 Oct. (Q = 1.4)
	Bass Gain	Continuously variable + 15 dB to - 15 dB Centre detent = 0dB
	Bass Shelving Frequency	80Hz
	Equaliser Stereo Channel	Hi Pass Slope
Hi Pass Frequency		80Hz
Treble Gain		Continuously variable + 15 dB to - 15 dB Centre detent = 0dB
Treble Frequency		12k
Hi Mid Gain		Continuously variable + 15 dB to - 15 dB Centre detent = 0dB
Hi Mid Frequency		3k
Hi Mid Bandwidth		1.4 Oct. (Q = 1)
Lo Mid Gain		Continuously variable + 15 dB to - 15 dB Centre detent = 0dB
Lo Mid Frequency		300Hz
Lo Mid Bandwidth		1.4 Oct. (Q = 1)
Bass Gain		Continuously variable + 15 dB to - 15 dB Centre detent = 0dB
Bass Shelving Frequency		80Hz

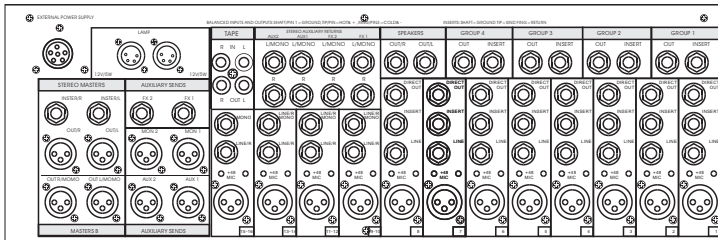


# CONNECTORS

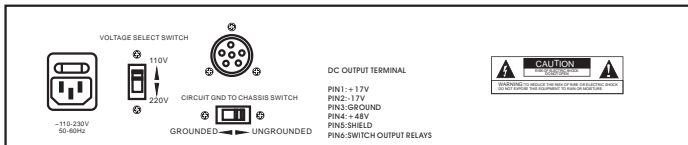
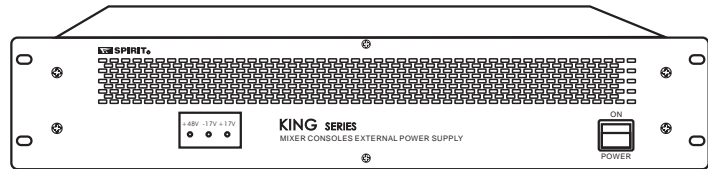
## KING-432



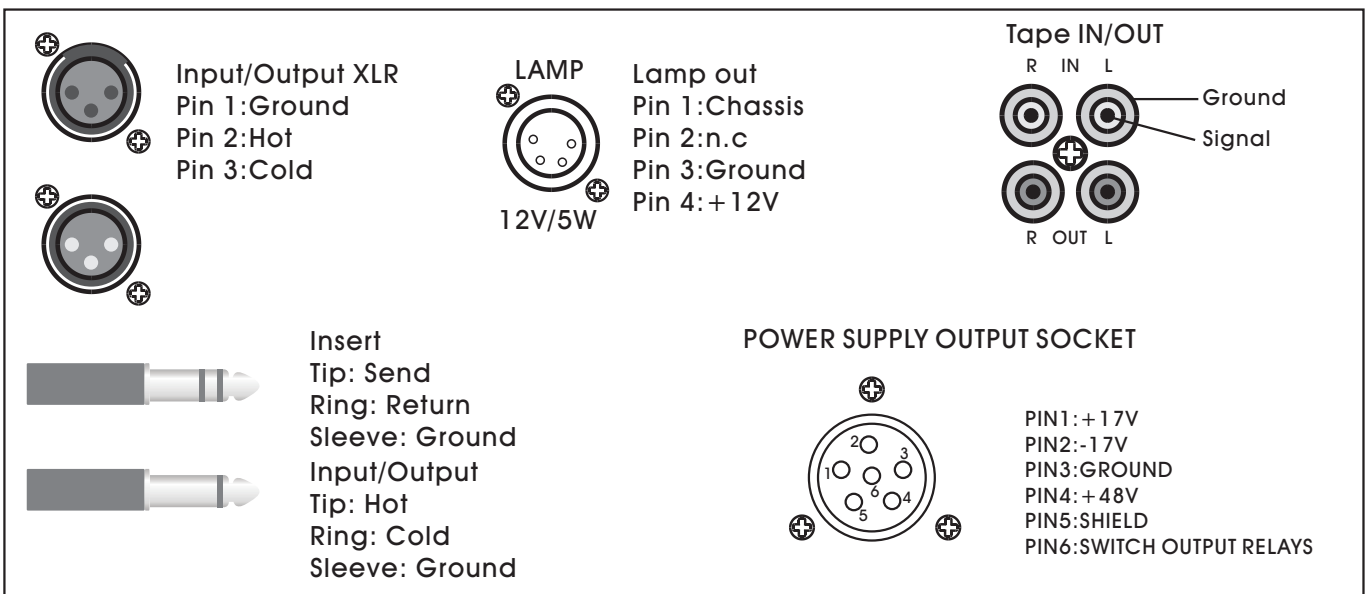
KING-424



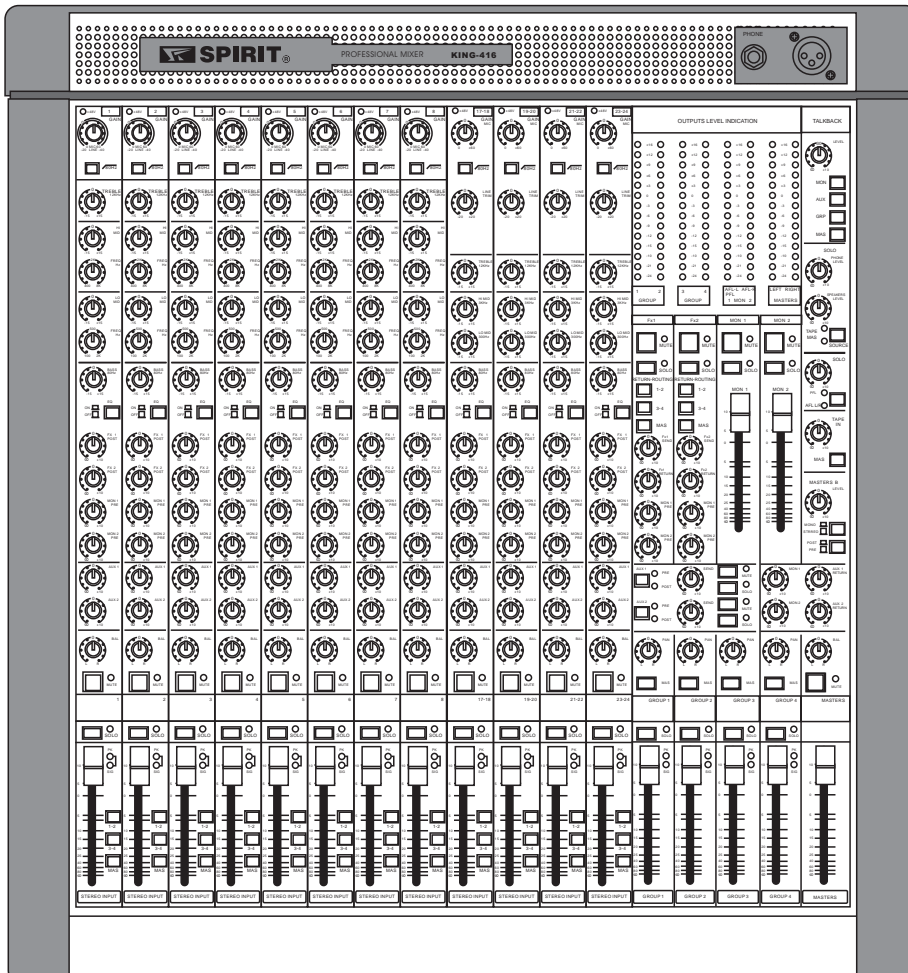
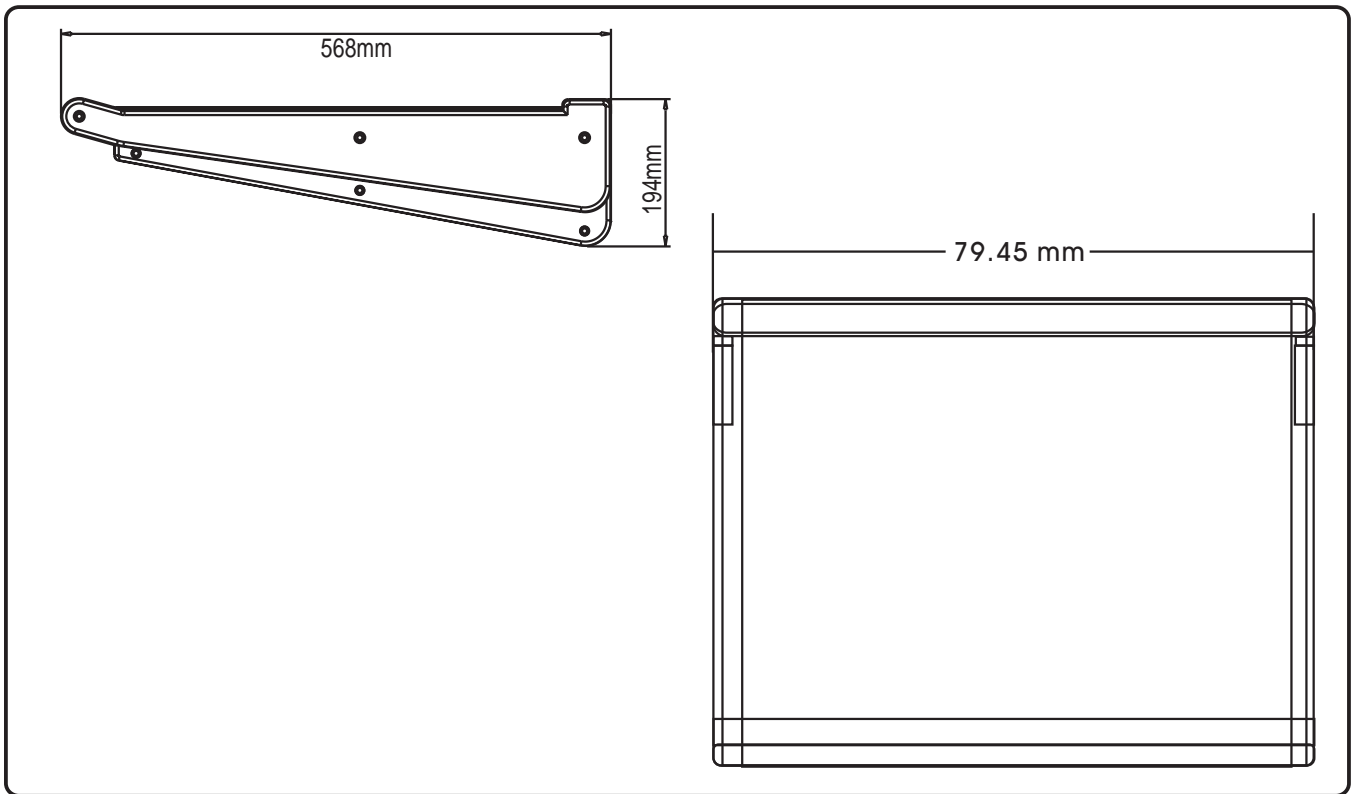
KING-416



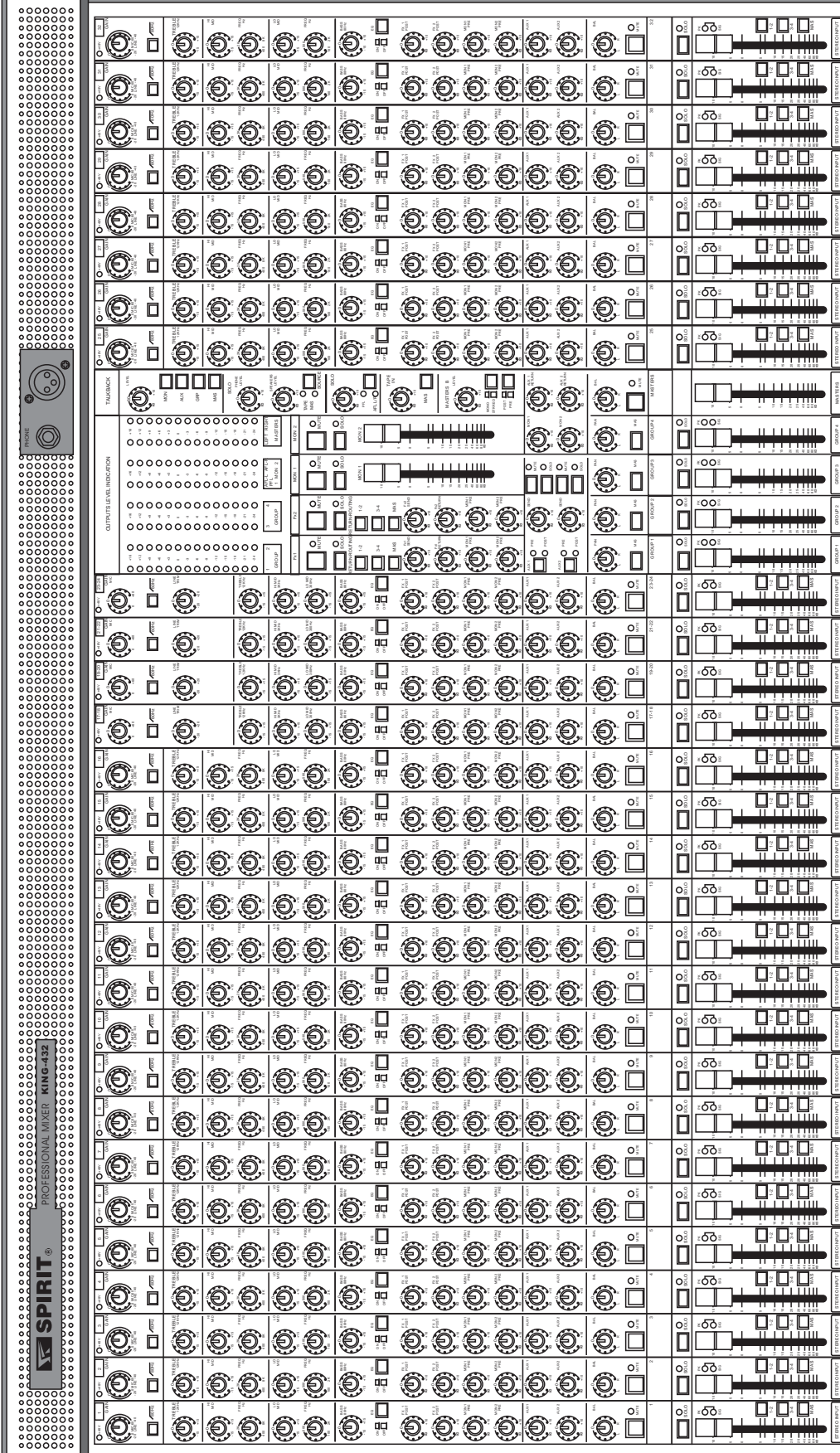
EXTERNAL POWER SUPPLY



# STRUCTURAL DIMENSIONS



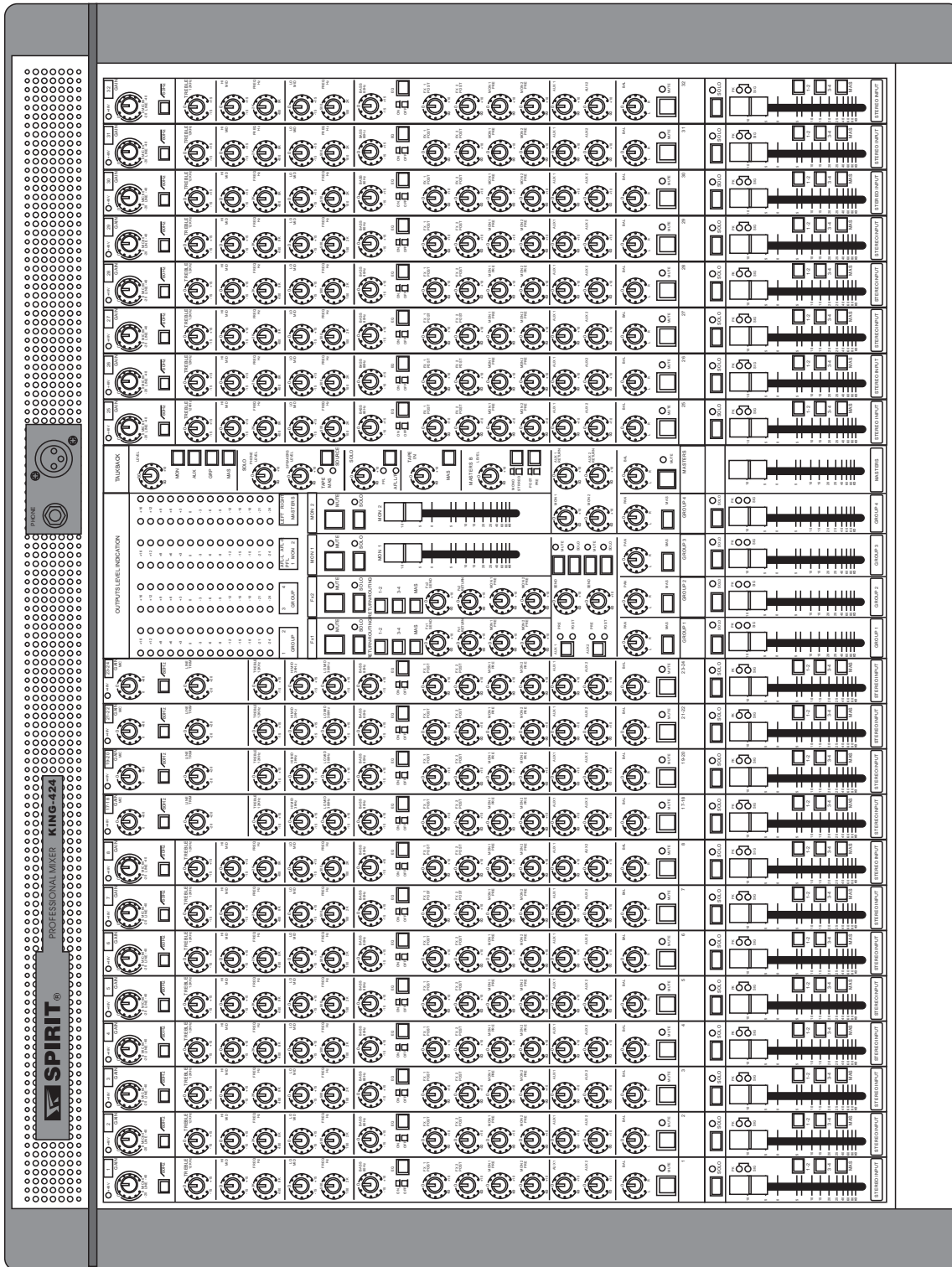
**KING-416**  
**STRUCTURAL**



**SPIRIT**  
PROFESSIONAL MIXER KING-432

King-432





King-424

