



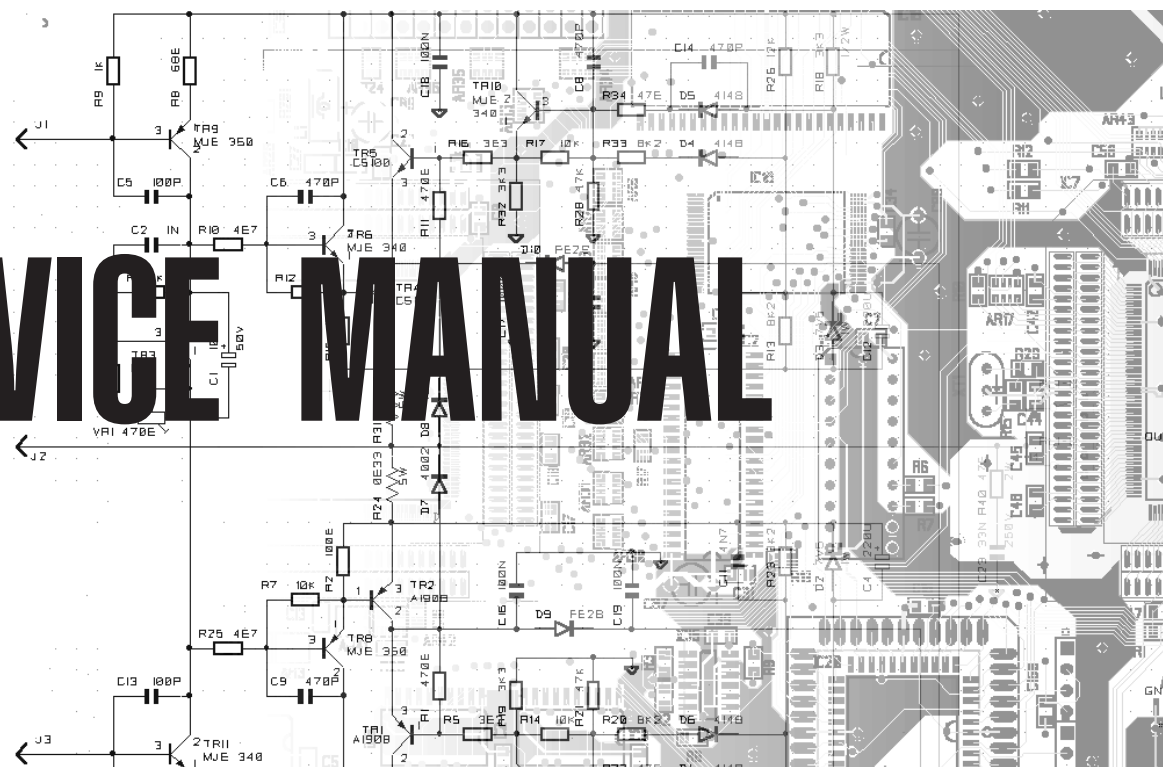
# SWING12

## 12 INPUT MIC/LINE MIXER

# SWING16

## 16 INPUT MIC/LINE MIXER

# SERVICE MANUAL



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## Warnings



### Notice

Service must be carried out by qualified personnel only. Any tampering carried out by unqualified personnel during the guarantee period will forfeit the right to guarantee.

For a correct operation of the instrument, after having switched off, be careful to wait at least 3 seconds before switching on again.

To improve the device's specifications, the schematic diagrams may be subject to change without prior notice.

All components marked by this symbol have special safety characteristics, when replacing any of these components use only manufacturer's specified parts.

The ( $\mu$ ) micro symbol of capacitance value is substituted by U.

The ( $\Omega$ ) omega symbol of resistance value is substituted by E.

The electrolytic capacitors are 25Vdc rated voltage unless otherwise specified.

All resistors are 1/8W unless otherwise specified.

All switches shown in the "OFF" position. All DC voltages measured to ground with a voltmeter 20KOhm/V.

← Soldering point.

• Male connector.

○ Female connector.

⊗ M/F faston connector.

↑ Supply voltage.

□ Test point.

⬭ Flag joined with one or more flags with the same signal name inscribed.

⊥ Logic supply ground.

⊥ Analog supply ground.

⊥ Chassis ground.

⊥ Earth ground.



### ATTENTION

Observe precautions when handling electrostatic sensitive devices.

## Address



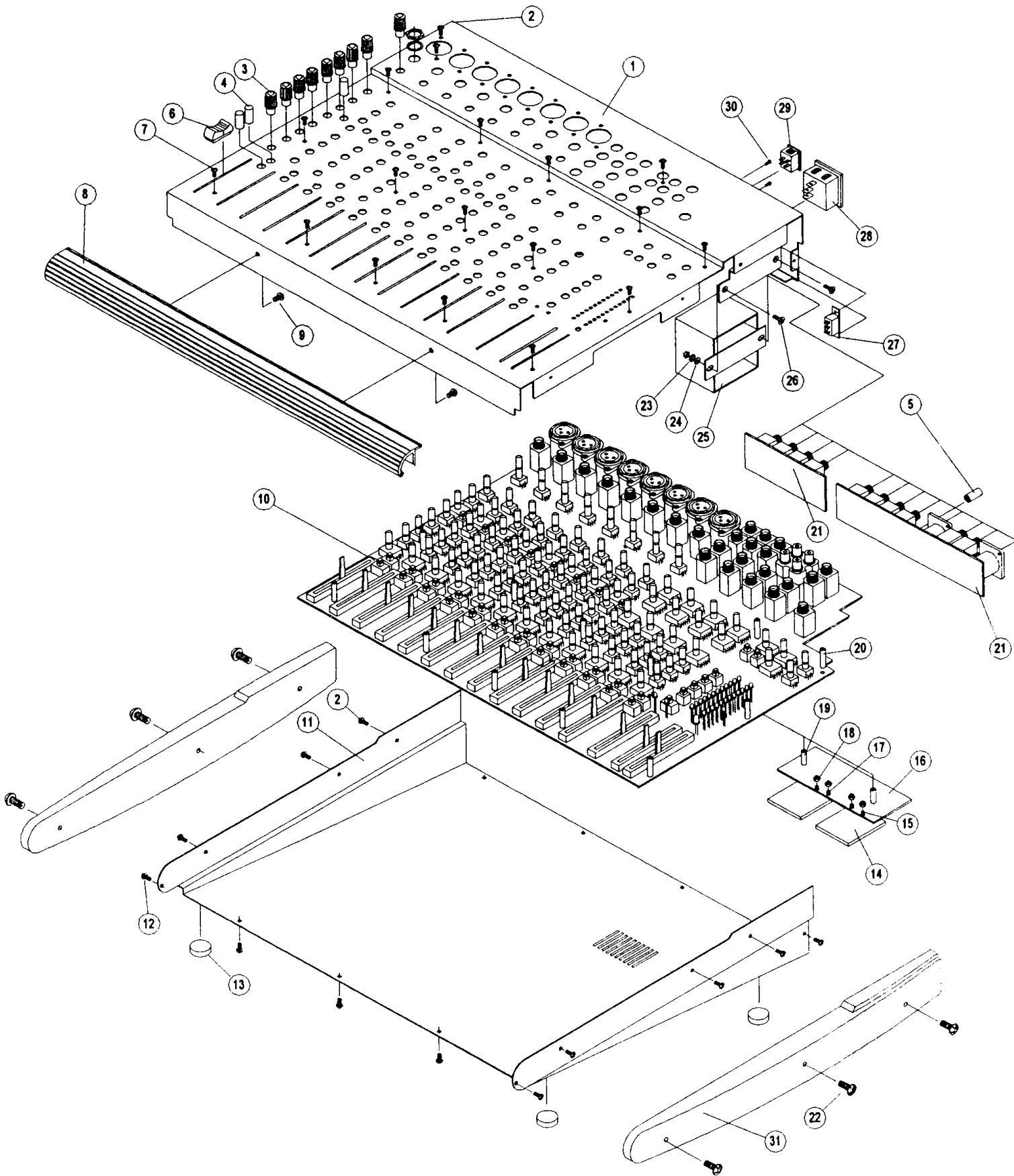
GENERALMUSIC S.p.A. Sales Division: 47842 S.Giovanni in Marignano (RN) ITALY - Via delle Rose, 12



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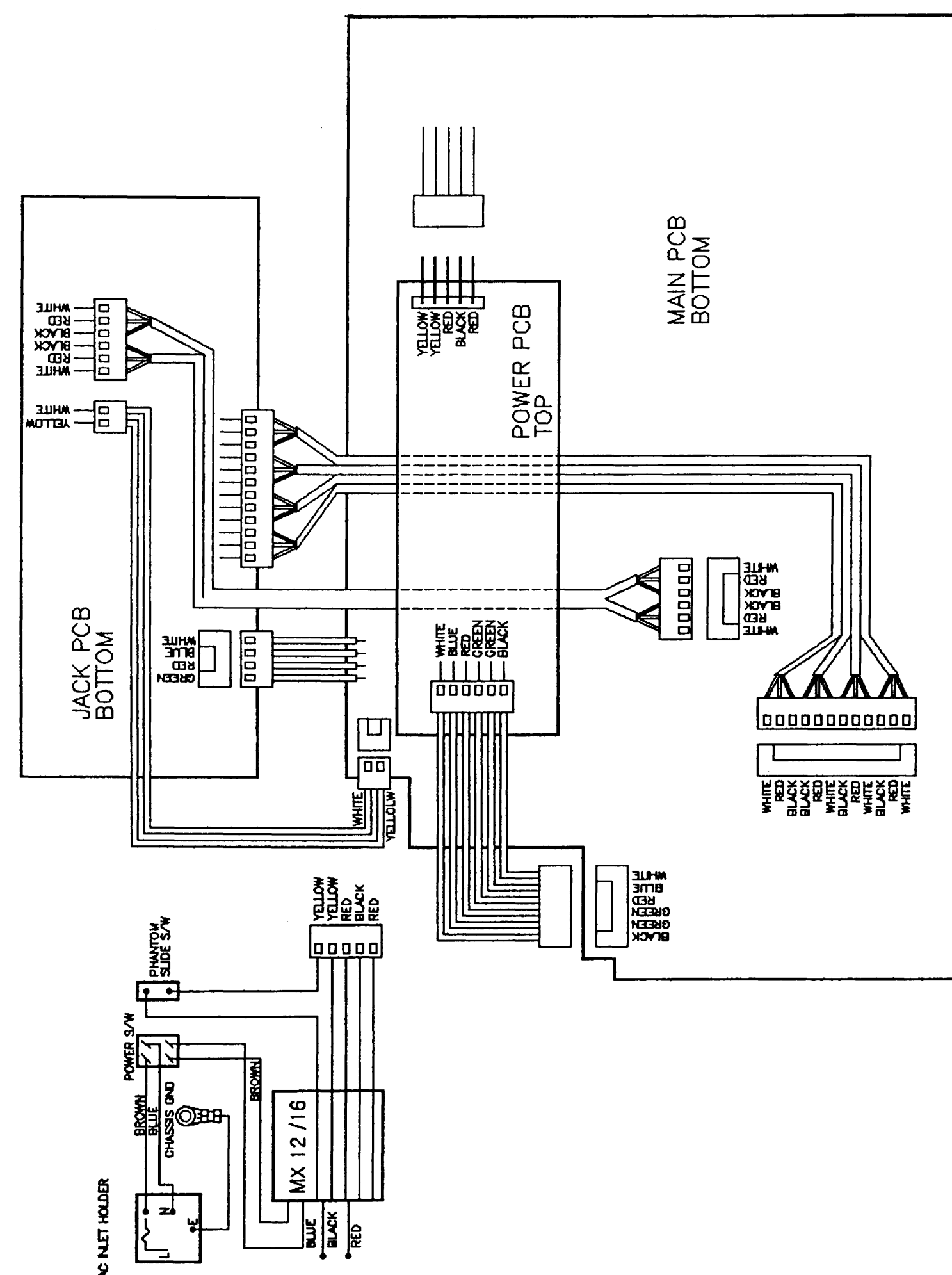
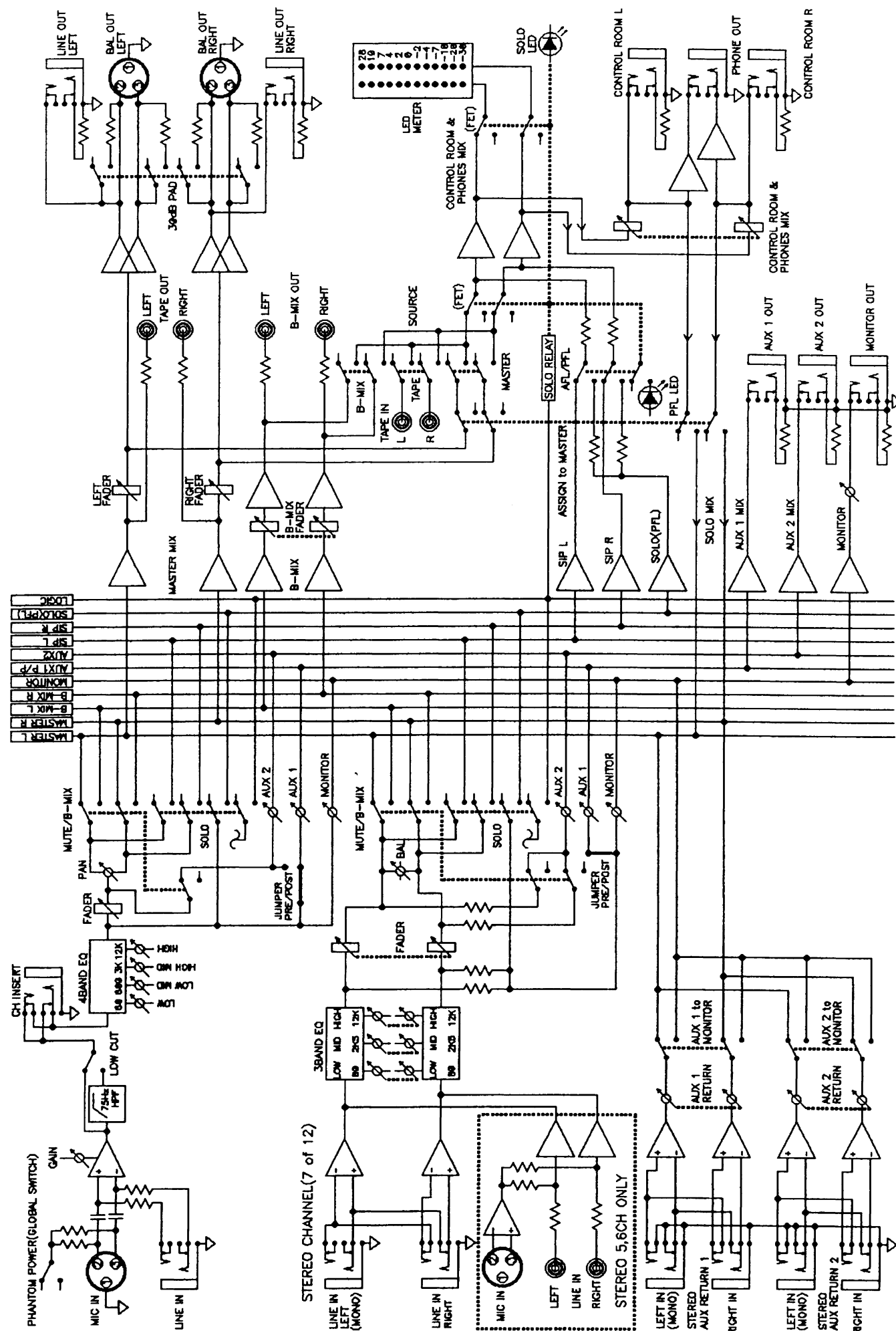
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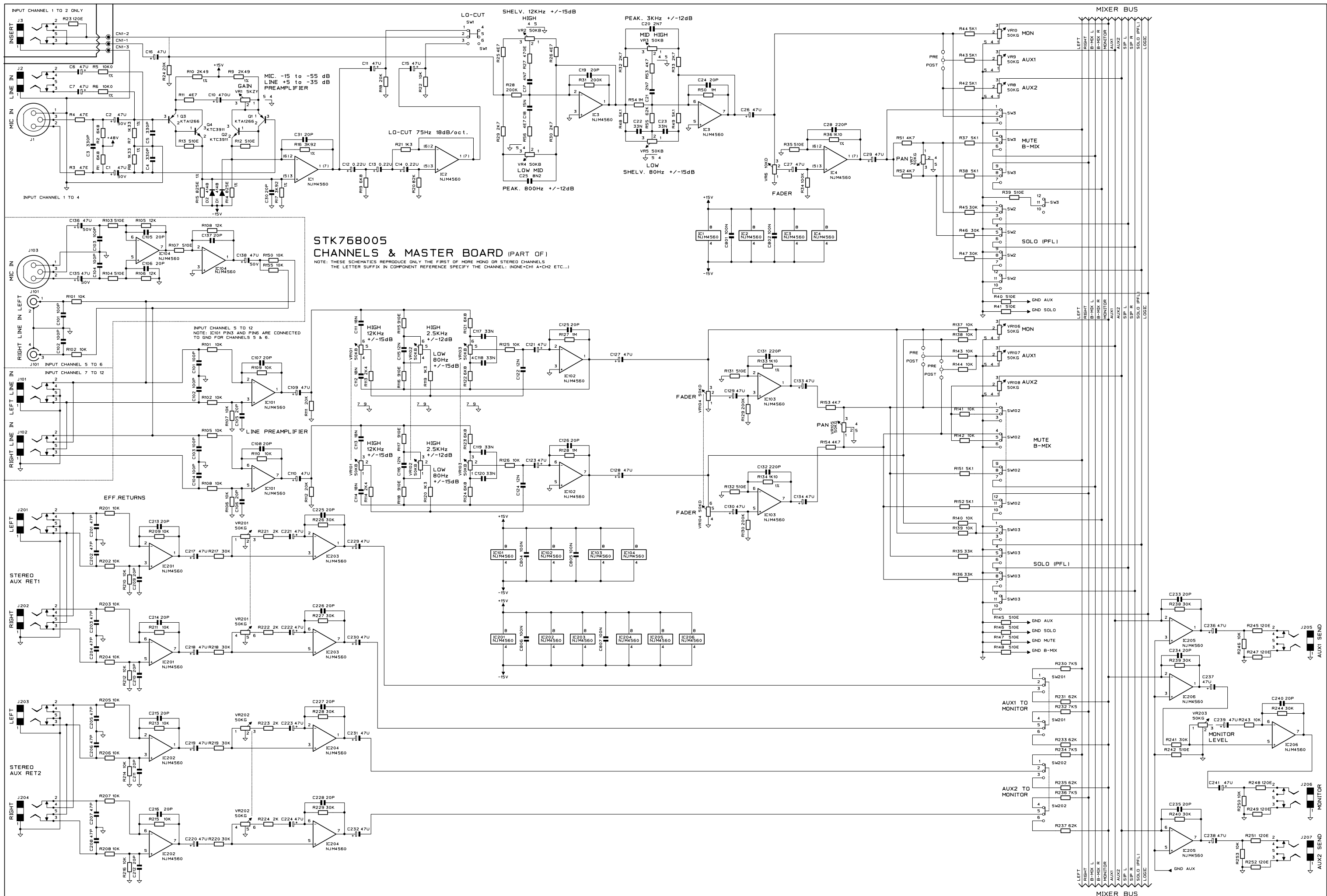


SWING 12 • TECHNICAL SPECIFICATIONS				
SECTION		LEVELS & DATA		CONNECTORS
MONO INPUT CHANNEL				
MIC input	sensitivity impedance	from -10 to -60dB 1.3 kOhms	Balanced XLR-F	
LINE input	sensitivity impedance	from +10 to -40dB 10 kOhms	Balanced JACK	
EQ	HPF HIGH HI-MID LO-MID LOW	75Hz, 18dB/oct. ±15dB @ 12kHz, SHELIVING ±12dB @ 3kHz, PEAKING ±12dB @ 800Hz, PEAKING ±15dB @ 80Hz, SHELIVING		
STEREO INPUT CHANNEL				
STEREO LINE input	sensitivity impedance	+4dB 10 kOhms	Balanced JACK	
MIC input (ch 5/6)	sensitivity impedance	-50dB 1.3 kOhms	Balanced XLR-F	
EQ	HIGH MID LOW	±15dB @ 12kHz, SHELIVING ±12dB @ 2.5kHz, PEAKING ±15dB @ 80Hz, SHELIVING		
MASTER SECTION				
MIX output (balanced)	output level	+4dB /-26dB	Balanced XLR-M	
MIX output (unbalanced)	output level	+4dB	Unbalanced JACK	
MIX B output	output level	+4dB	RCA phono	
CONTROL ROOM output	output level	+4dB	Unbalanced JACK	
MONITOR output	output level	+4dB	Unbalanced JACK	
AUX sends	output level	+4dB	Unbalanced JACK	
AUX return	sensitivity	-10dB	Unbalanced JACK	
TAPE	IN OUT	-10dB +4dB	RCA phono	
HEADPHONES output	minimum impedance output level	200 Ohms 2x160mW	Stereo JACK	
GENERAL SPECIFICATIONS				
Frequency response		20Hz - 60kHz, ±1dB		
Hum & Noise		-90dB		
THD		<0.005% @ 1kHz		
IMD		<0.005% @ 1kHz		
Crosstalk	FADER	-85dB		
	MUTE	-84dB		
	PAN	-85dB		
Maximum levels	MIC IN	+14dBu		
	TAPE IN	+16dBu		
	other outputs	+22dBu		
	MIX OUT (XLR)	+28dBu		
	other outputs	+22dBu		
Power supply		see label on the apparatus		
Weight	kg	4.5		
Dimensions	mm (WxHxD)	305x72x354		

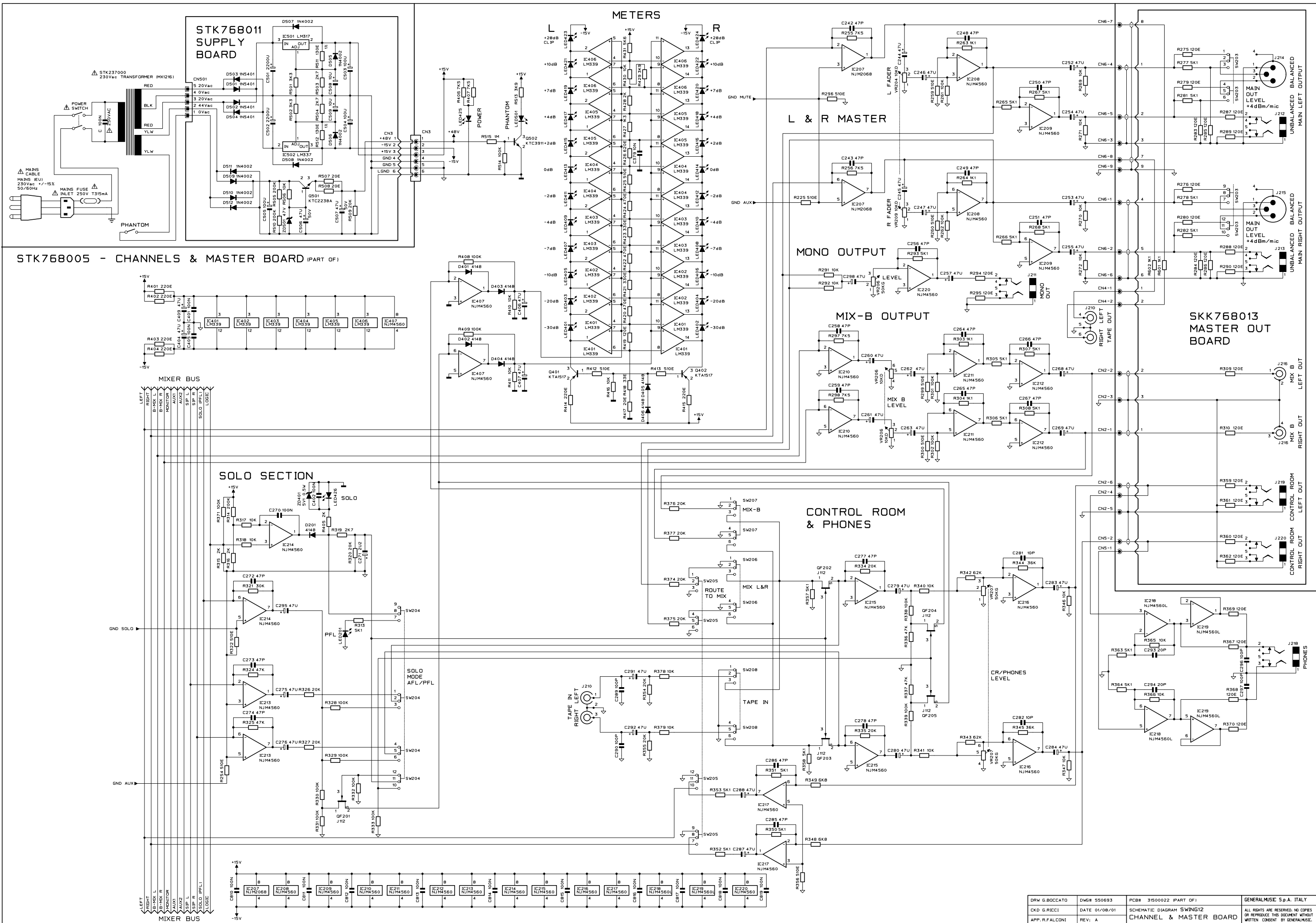
# SWING12 BLOCK DIAGRAM

# SWING12 WIRING DIAGRAM





DRW G. BOCCATO	DWG# 550691	PCB# 31500032 (PART OF)	GENERALMUSIC S.p.A. ITALY
CKD G. RICCI	DATE 20/06/01	SCHEMATIC DIAGRAM SWING12	ALL RIGHTS ARE RESERVED. NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY GENERALMUSIC.
APP. R. FALCONI	REV: A	MONO & STEREO CHANNEL	



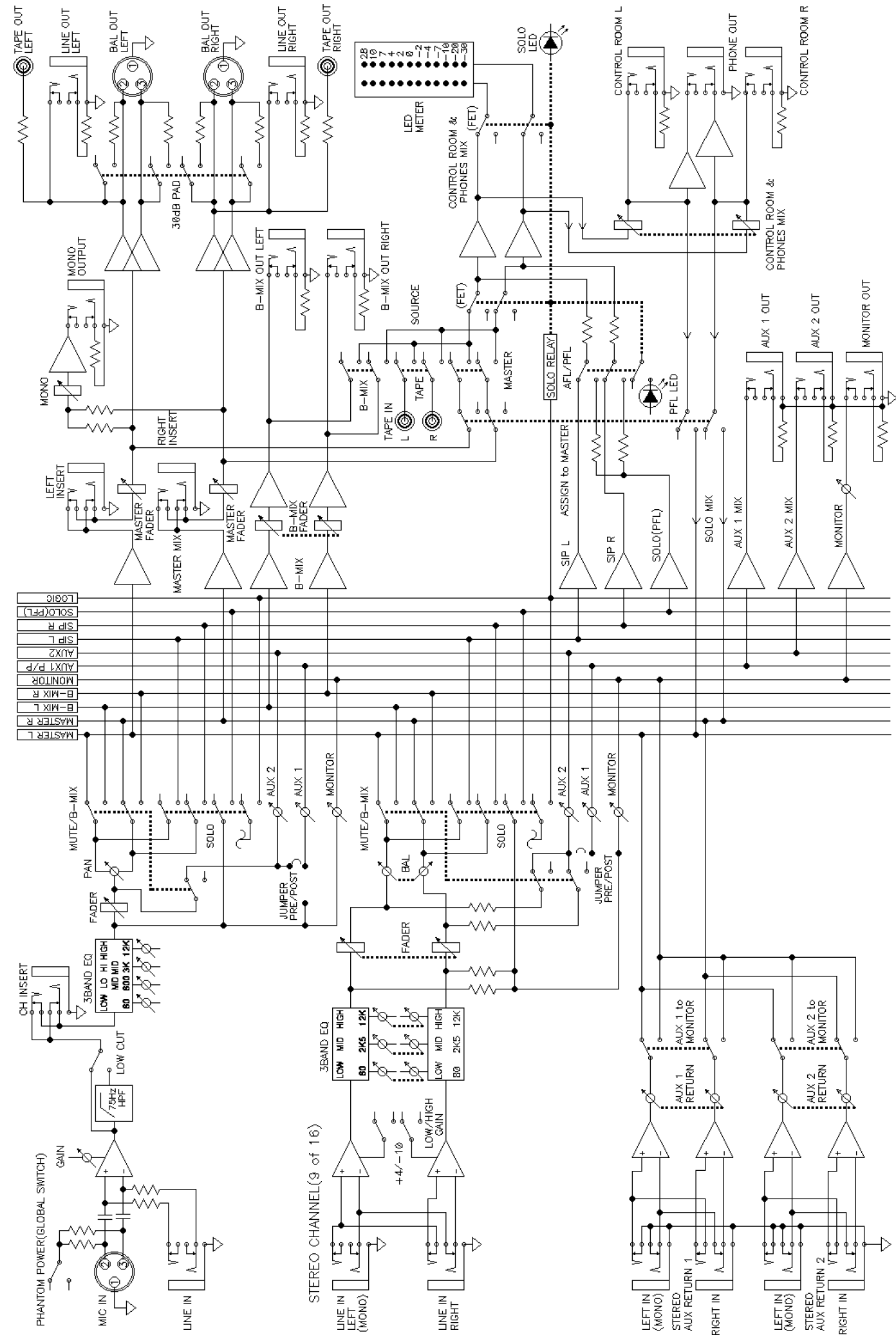
## SWING12 SPARE PART LIST

Code	Ref	Description
Accessories		
277360		Owner's Manual (English-Italian)
130297		Mains Cable (EU)
951335		SWR12 Rack Adaptor
Mechanical Parts		
STK667001	11	Bottom Chassis
STK667000	1	Top Chassis
STK667017	8	Front Bar
STK340010	13	Adhesive Rubber Foot
STK340000	5	High Switch Actuator
STK340001	4	Switch Actuator
STK340002	3A	Red Knob
STK340003	3B	Blue Knob
STK340004	3C	Gray Knob
STK340005	3D	Yellow Knob
STK340006	3E	White Knob
STK340007	6	Slider Knob for 60mm Slider Pot
Mains Assembly		
STK110600	10	Mains Inlet with 5x20mm Fuse Holder
1110008		T315mA Fuse 5x20mm (EU)
STK110285	9	4A 250Vac Bipolar Power Switch
STK110203	12	Black Bipolar Switch
STK237000	17	Shielded Transformer (MX1216) 230Vac/20+20/44Vac
Supply Board		
STK768011	14	Supply Board
STK030805	*	2200u 25V 20% Vert Electrolytic Capacitor
STK100066	*	LM317 1.2-37V 1.5A Adjustable Regulator
STK100067	*	LM337 1.2-37V 1.5A Adjustable Regulator
STK090002	*	KTC2238AY Npn Transistor
340079	*	TO220 Mica Washer
STK080156	*	1N4002 1A 100V Rectifier Diode
STK080201	*	1N4756A 47V 1W 5% Zener Diode
Channels & Master Board		
STK768005		Channels & Master Board
STK140000	*	Vertical Jack Stereo Female Socket
STK141000	*	Vertical Female XLR Socket
STK140201	*	Vertical Rca Quad Female Socket
STK075000	*	5KZY Rotary Potentiometer
STK074000	*	50KB Rotary Potentiometer with Central Click
STK074001	*	50KG Rotary Potentiometer with Central Click
STK074003	*	2x50KG Rotary Potentiometer with Central Click
STK074004	*	2x50KB Rotary Potentiometer with Central Click
STK073001	*	10KD 60mm Slider Potentiometer
STK073002	*	2x50KD 60mm Slider Potentiometer
STK073003	*	2x10KD 60mm Slider Potentiometer
STK090000	*	KTA1266Y TO92 LN Pnp Transistor
STK091000	*	KTC3911Y SOT23 LN Npn Transistor
STK090003	*	J112 TO92 N-Channel JFET
STK110200	*	4sw 2pos Vertical Slider Switch
STK110201	*	2sw 2pos Vertical Slider Switch
STK081000	*	1N4148 100mA 75V Signal Diode
STK080232	*	5V1 0.5W 5% Zener Diode
STK081000	*	1N4148 100mA 75V Signal Diode
STK080700	*	3mm Diffused Red Led
STK080701	*	3mm Diffused Green Led
STK080702	*	3mm Diffused Yellow Led
STK080703	*	5mm Diffused Red Led
STK106000	*	NJM4560M SOIC Dual Operational Amplifier
STK106001	*	NJM2068M SOIC LN Dual Operational Amplifier
STK106002	*	LM339 SOIC Quad Comparator
STK100000	*	NJM4560L SIP8 Dual Operational Amplifier
Master Out Board		
STK768013	21	Master Out Board
STK140000	*	Vertical Jack Stereo Female Socket
STK141002	*	Vertical Male XLR Socket
STK140200	*	Vertical Rca Stereo Female Socket
STK110200	*	4sw 2pos Vertical Slider Switch
STK106000	*	MC4560M SOIC Dual Operational Amplifier

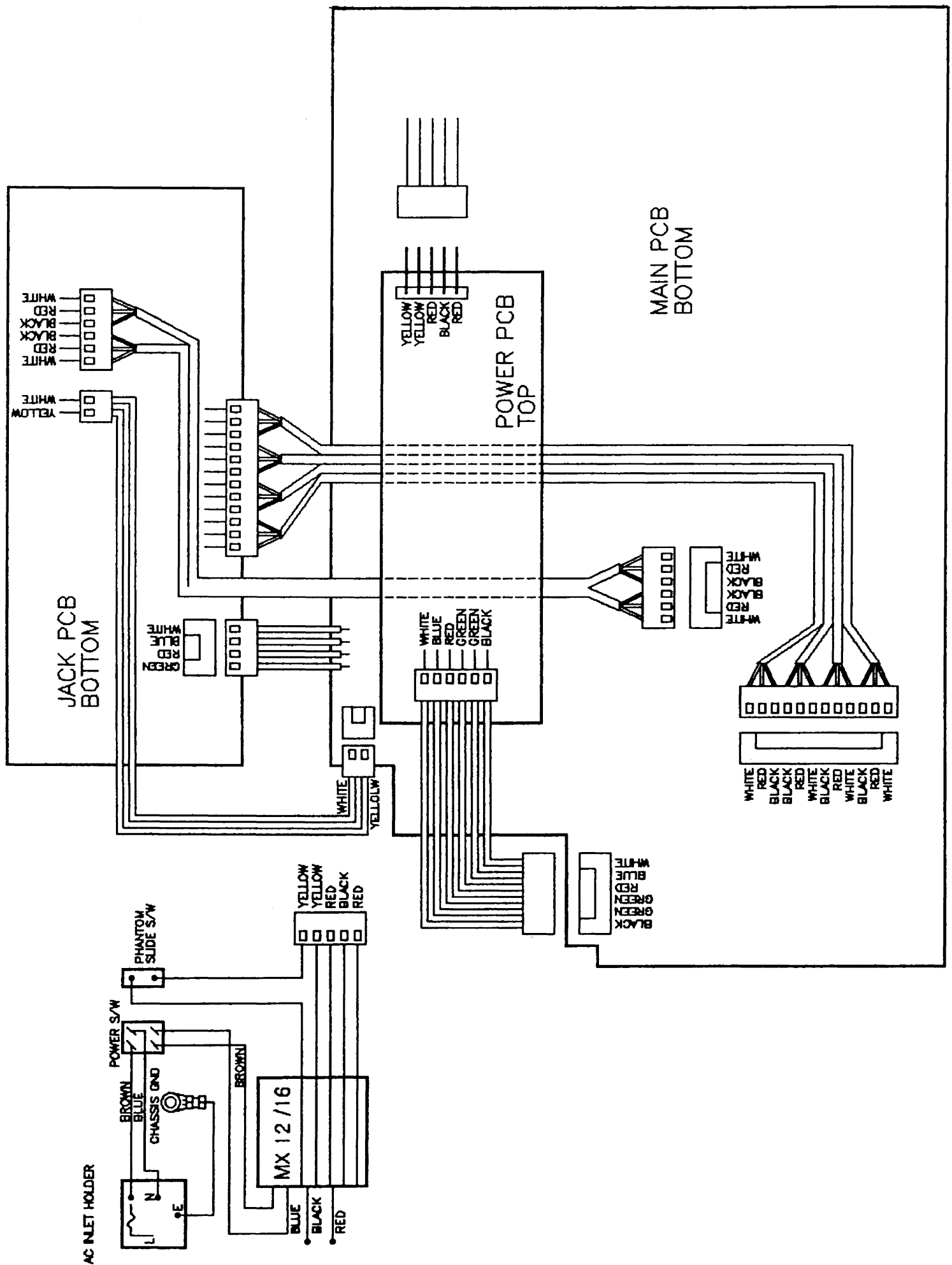
## SWING16 TECHNICAL SPECIFICATIONS

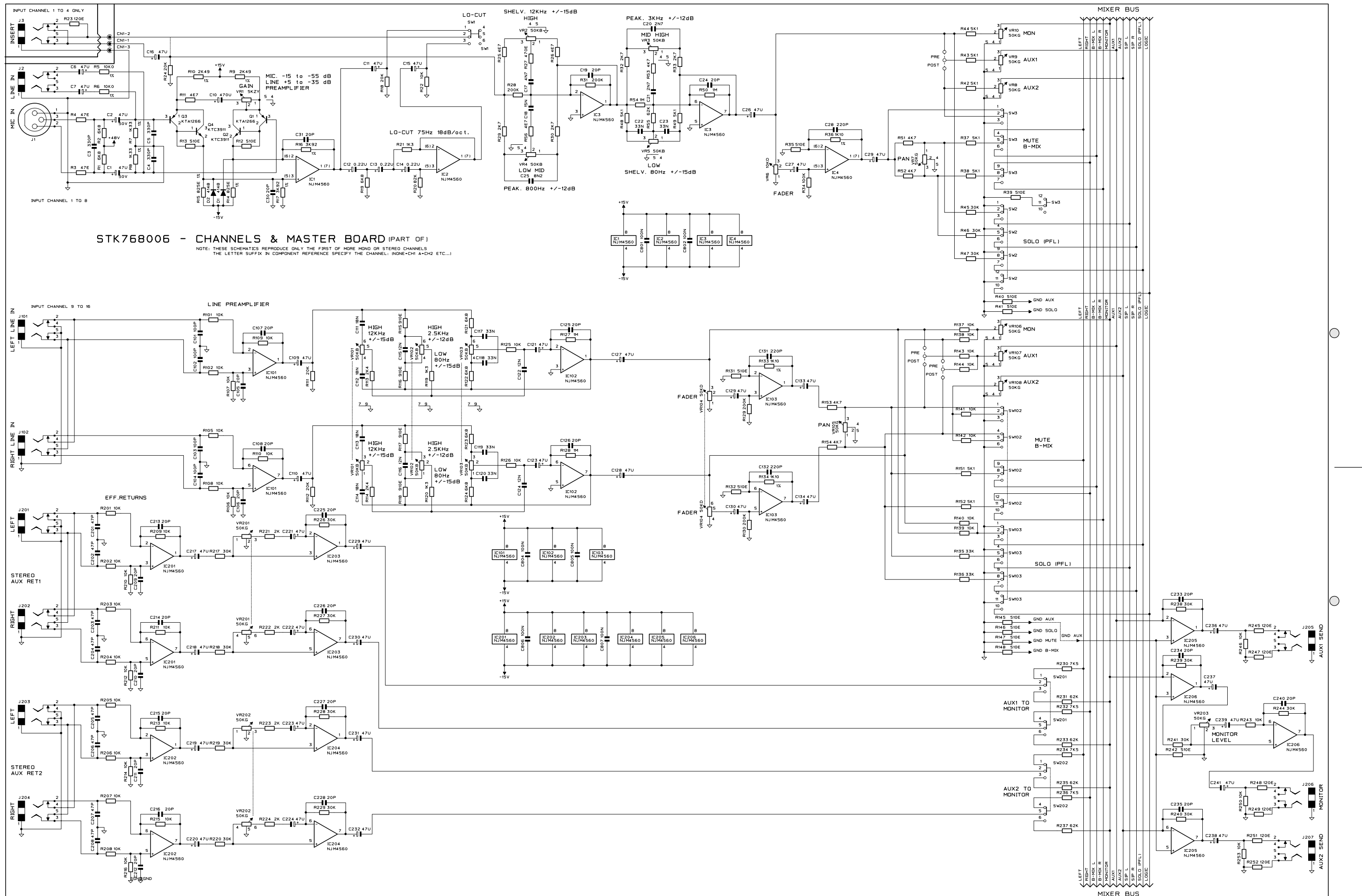
SWING 16 • TECHNICAL SPECIFICATIONS				
SECTION		LEVELS & DATA		CONNECTORS
MONO INPUT CHANNEL				
MIC input	sensitivity impedance	from -10 to -60dB 1.3 kOhms	Balanced XLR-F	
LINE input	sensitivity impedance	from +10 to -40dB 10 kOhms	Balanced JACK	
EQ	HPF HIGH HI-MID LO-MID LOW	75Hz, 18dB/oct ±15dB @ 12kHz, SHELIVING ±12dB @ 3kHz, PEAKING ±12dB @ 800Hz, PEAKING ±15dB @ 80Hz, SHELIVING		
STEREO INPUT CHANNEL				
STEREO LINE input	sensitivity impedance	+4dB 10 kOhms	Balanced JACK	
EQ	HIGH MID LOW	±15dB @ 12kHz, SHELIVING ±12dB @ 2.5kHz, PEAKING ±15dB @ 80Hz, SHELIVING		
MASTER SECTION				
MIX output (balanced)	output level	+4dB /-26dB	Balanced XLR-M	
MIX output (unbalanced)	output level	+4dB	Unbalanced JACK	
MIX B output	output level	+4dB	RCA phono	
MONO output	output level	+4dB	Bnbalanced JACK	
CONTROL ROOM output	output level	+4dB	Unbalanced JACK	
MONITOR output	output level	+4dB	Unbalanced JACK	
AUX sends	output level	+4dB	Unbalanced JACK	
AUX return	sensitivity	-10dB	Unbalanced JACK	
TAPE	IN OUT	-10dB +4dB	RCA phono	
HEADPHONES output	minimum impedance output level	200 Ohms 2x160mW	Stereo JACK	
GENERAL SPECIFICATIONS				
Frequency response		20Hz - 60kHz, ±1dB		
Hum & Noise		-90dB		
THD		<0.005% @ 1kHz		
IMD		<0.005% @ 1kHz		
Crosstalk	FADER MUTE PAN	-85dB -84dB -85dB		
Maximum levels	MIC IN TAPE IN other outputs MIX OUT (XLR) other outputs	+14dBu +16dBu +22dBu +28dBu +22dBu		
Power supply		see label on the apparatus		
Weight	kg	5.5		
Dimensions	mm (WxHxD)	411x72x354		

SWING16 BLOCK DIAGRAM



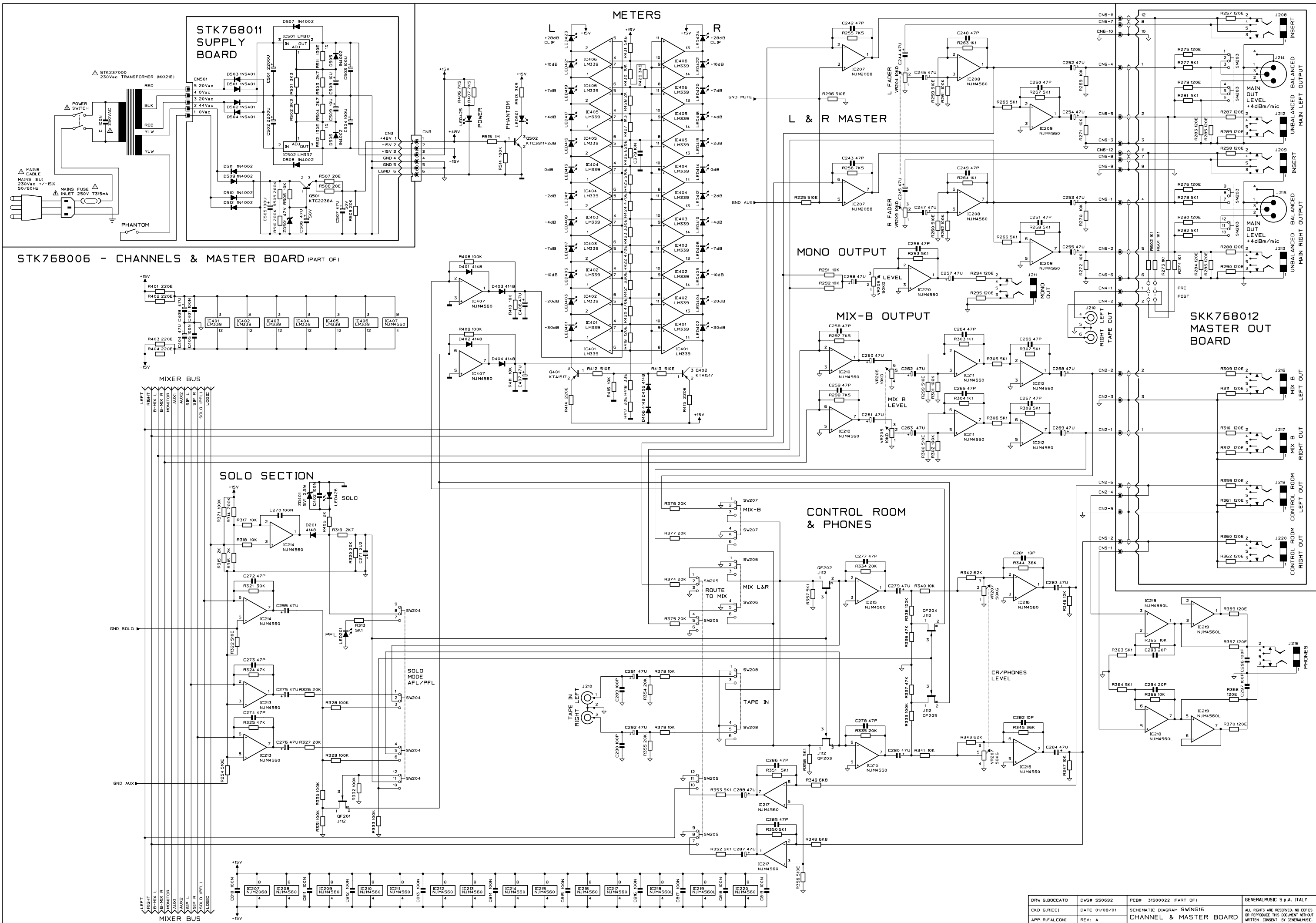
SWING16 WIRING DIAGRAM





DRW G. BOCCATO	DWG# 550685	PCB# 31500022 (PART OF)	GENERAL MUSIC S.p.A. ITALY
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APP. R. FALCONI	REV: A	MONO & STEREO CHANNEL	





## SWING16 - SPARE PART LIST

Ref	Description
Accessories	
277360	Swing12-16 Owner's Manual (English-Italian)
130297	Mains Cable (EU)
951336	SWR16 Rack Adaptor
Mechanical Parts	
STK667003	11 Bottom Chassis
STK667002	1 Top Chassis
STK667018	8 Front Bar
STK340010	13 Adhesive Rubber Foot
STK340000	5 High Switch Actuator
STK340001	4 Switch Actuator
STK340002	3A Red Knob
STK340003	3B Blue Knob
STK340004	3C Gray Knob
STK340005	3D Yellow Knob
STK340006	3E White Knob
STK340007	6 Slider Knob for 60mm Slider Pot
Mains Assembly	
STK110600	10 Mains Inlet with 5x20mm Fuse Holder
110008	T315mA Fuse 5x20mm (EU)
STK110285	9 4A 250Vac Bipolar Power Switch
STK110203	12 Black Bipolar Switch
STK237000	17 Shielded Transformer (MX1216) 230Vac/20+20/44Vac
Supply Board	
STK768011	14 Supply Board
STK030805	* 2200u 25V 20% Vert Electrolytic Capacitor
STK100066	* LM317 1.2-37V 1.5A Adjustable Regulator
STK100067	* LM337 1.2-37V 1.5A Adjustable Regulator
STK090002	* KTC2238AY Npn Transistor
340079	* TO220 Mica Washer
STK080156	* 1N4002 1A 100V Rectifier Diode
STK080201	* 1N4756A 47V 1W 5% Zener Diode
Channels & Master Board	
STK768006	10 Channels & Master Board
STK140000	* Vertical Jack Stereo Female Socket
STK141000	* Vertical Female XLR Socket
STK140201	* Vertical Rca Quad Female Socket
STK075000	* 5KZY Rotary Potentiometer
STK074000	* 50KB Rotary Potentiometer with Central Click
STK074001	* 50KG Rotary Potentiometer with Central Click
STK074003	* 2x50KG Rotary Potentiometer with Central Click
STK074004	* 2x50KB Rotary Potentiometer with Central Click
STK073001	* 10KD 60mm Slider Potentiometer
STK073002	* 2x50KD 60mm Slider Potentiometer
STK090000	* KTA1266Y TO92 LN Pnp Transistor
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STK090003	* J112 TO92 N-Channel JFET
STK110200	* 4sw 2pos Vertical Slider Switch
STK110201	* 2sw 2pos Vertical Slider Switch
STK081000	* PMLL4148 Smd 100mA 75V Signal Diode
STK080232	* 5V1 0.5W 5% Zener Diode
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STK100000	* NJM4560L SIP8 Dual Operational Amplifier
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Master Out Board	
STK768012	21 Master Out Board
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STK141002	* Vertical Male XLR Socket
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