

SWING20FX

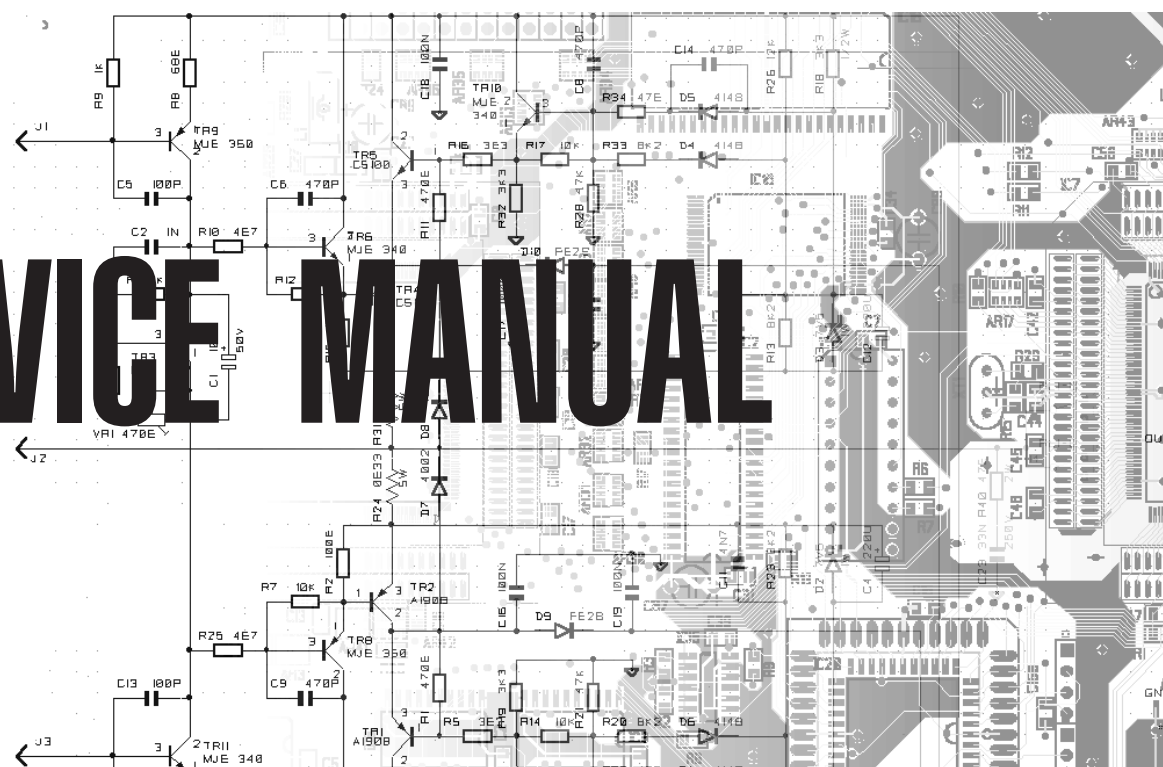
20 INPUT INTEGRATED LIVE MIXER

SWING20

20 INPUT LIVE MIXER



SERVICE MANUAL



Index

- 2 Exploded View & Technical Specifications
- 3 Block Diagrams
- 4 Wiring Diagram
- 5 Mono & Stereo Channels Schematic Diagram
- 6 Channels & Master Schematic Diagram (part of)
- 7 Channels & Master Schematic Diagram (part of)
- 8 Spare Part List

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 (μ) micro symbol of capacitance value is substituted by U.

The (Ω) 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



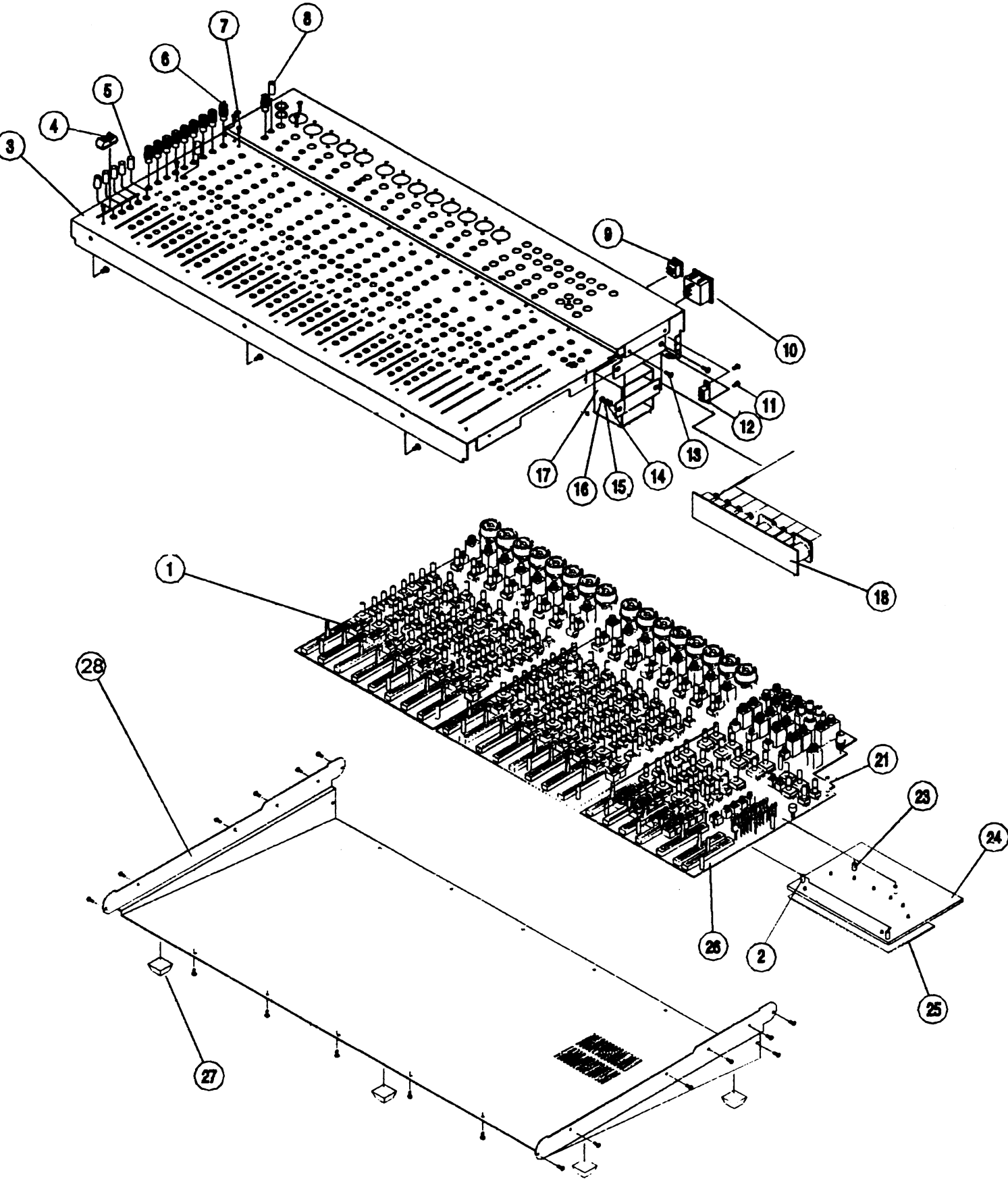
GENERALMUSIC S.p.A. Sales Division: 47842 S.Giovanni in Marignano (RN) ITALY - Via delle Rose, 12



Phone +39(0)541/959511 - Fax +39(0)541/957404 - GENERALMUSIC on the NET: <http://www.generalmusic.com>

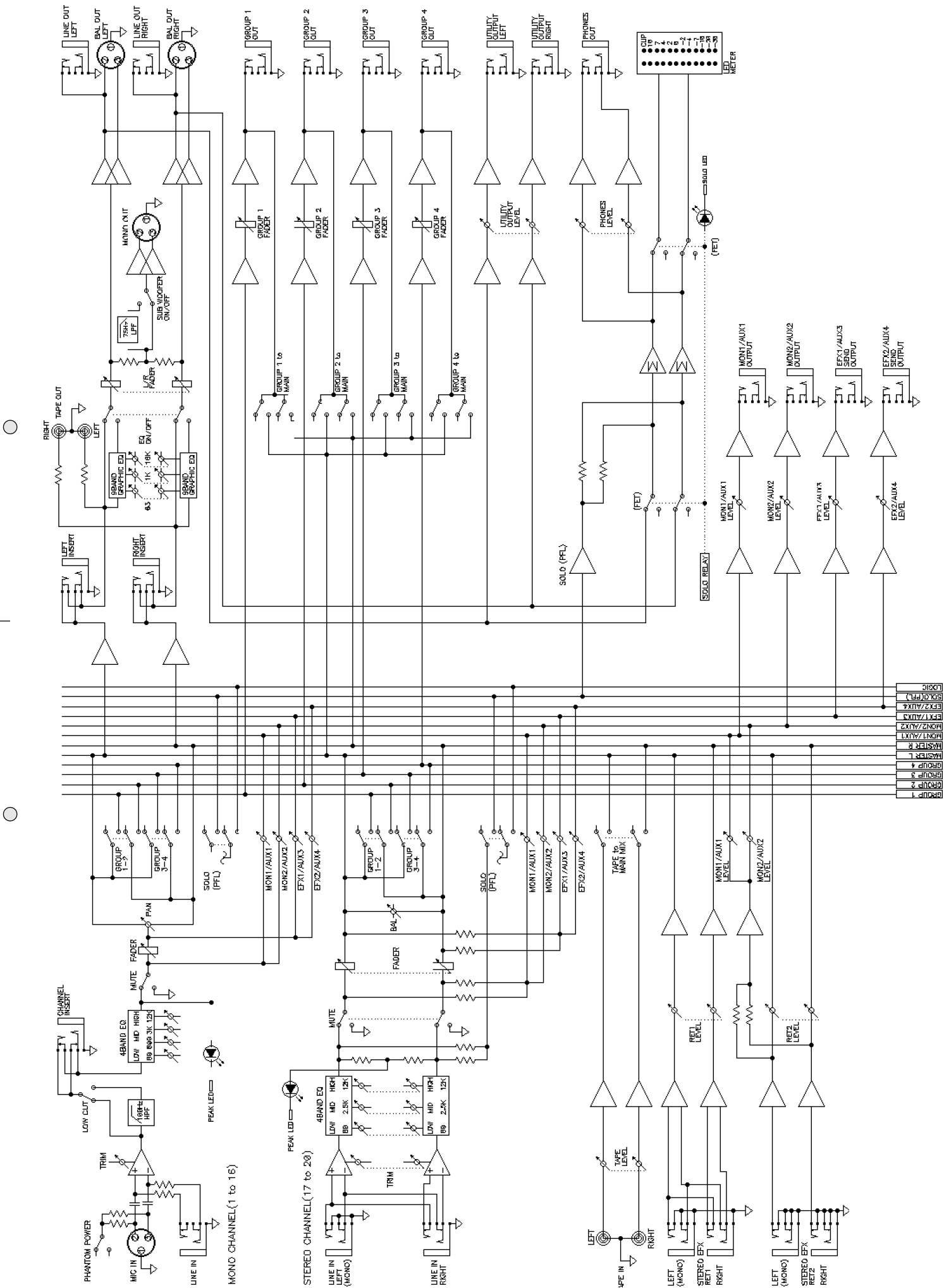


▶ CODE: 270269 ◀

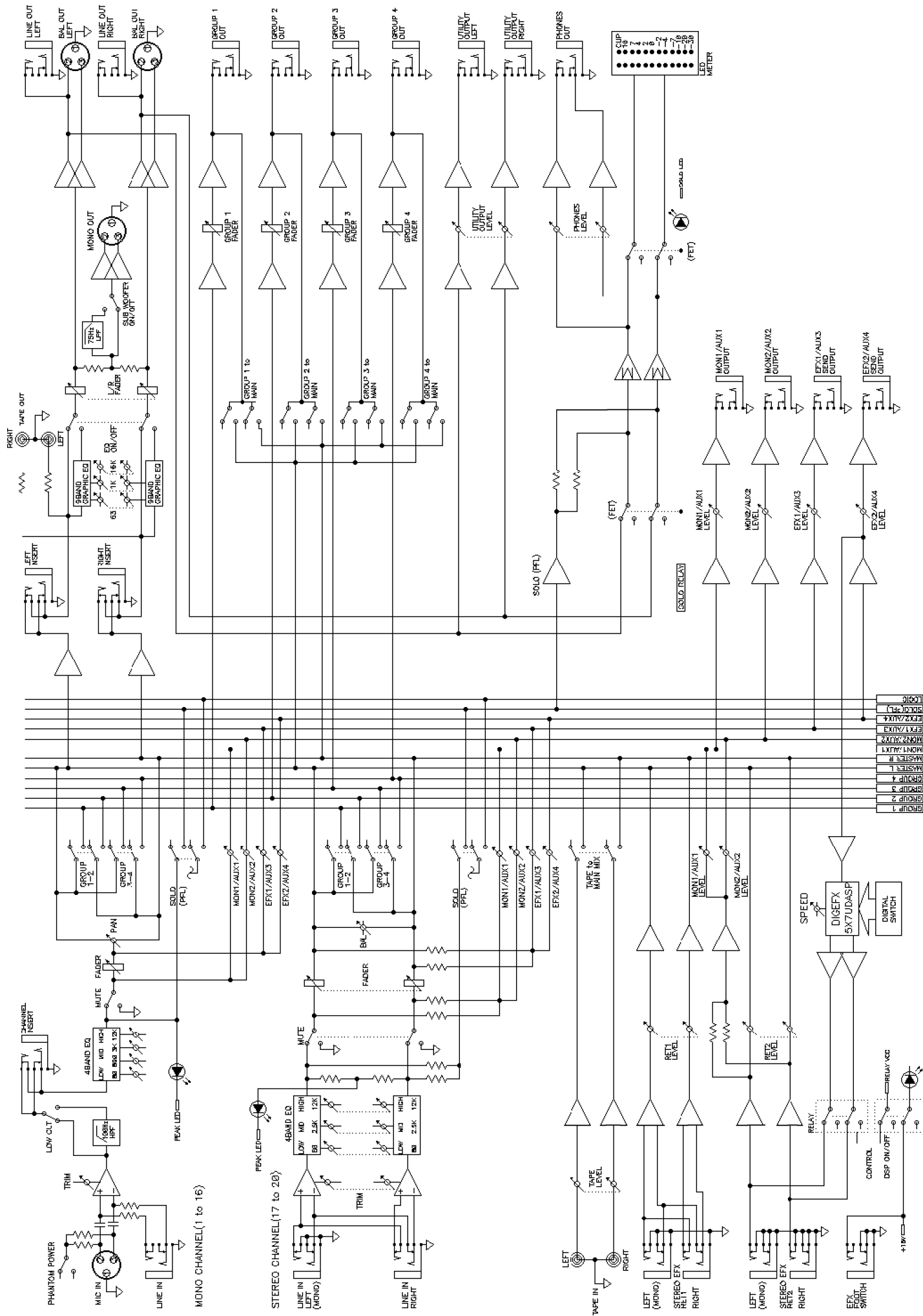


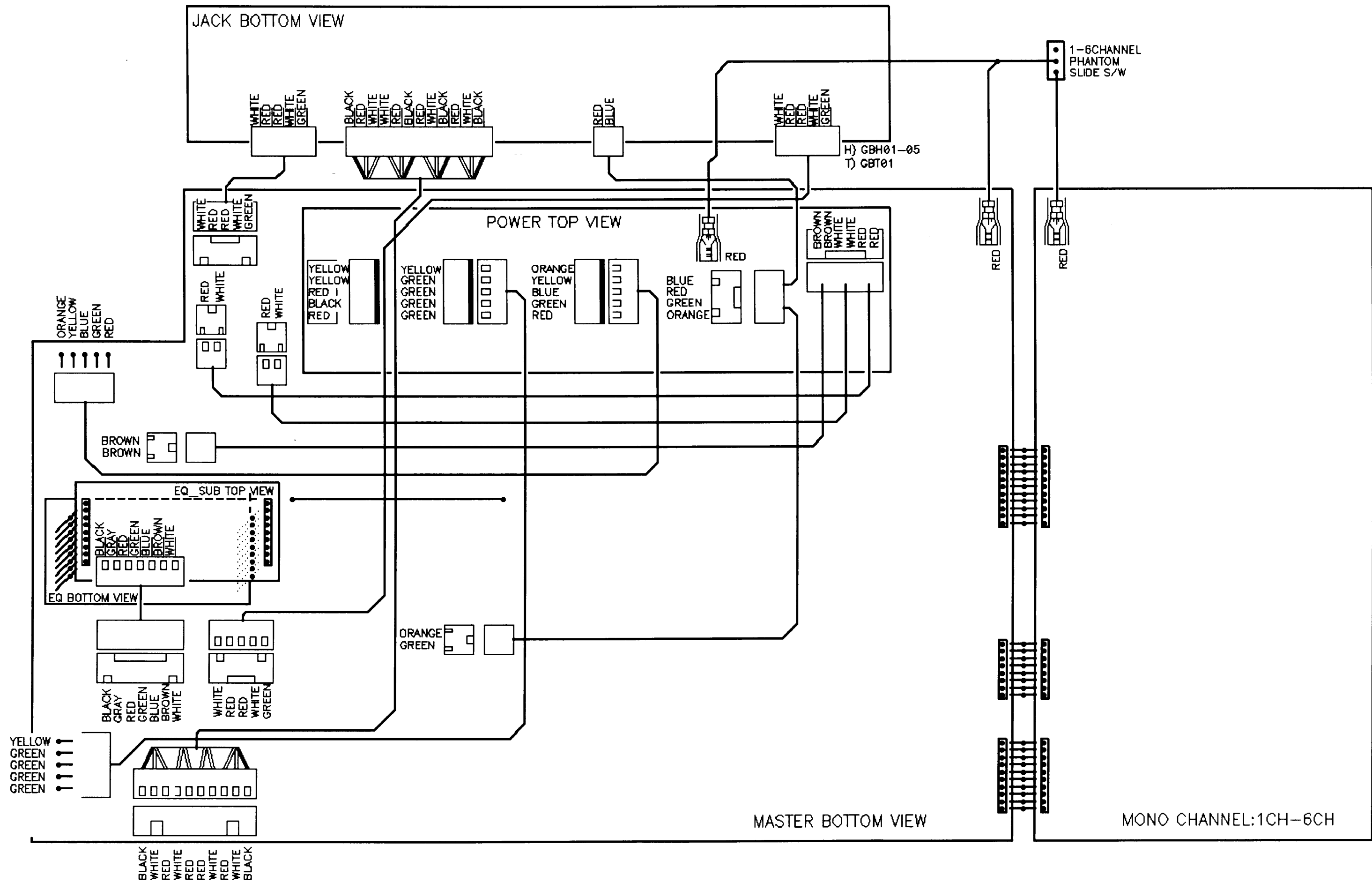
SWING 20/20FX • TECHNICAL SPECIFICATIONS				
SECTION		LEVELS & DATA		CONNECTORS
MONO INPUT CHANNEL				
MIC input	<i>sensitivity</i> <i>impedance</i>	from -10 to -60dB 1.3 kOhms	Balanced XLR-F	
LINE input	<i>sensitivity</i> <i>impedance</i>	from +10 to -40dB 10 kOhms	Balanced JACK	
EQ	<i>HPF</i>	75Hz, 18dB/oct.		
	<i>HIGH</i>	±15dB @ 12kHz, SHELIVING		
	<i>HI-MID</i>	±12dB @ 3kHz, PEAKING		
	<i>LO-MID</i>	±12dB @ 800Hz, PEAKING		
	<i>LOW</i>	±15dB @ 80Hz, SHELIVING		
STEREO INPUT CHANNEL				
STEREO LINE input	<i>sensitivity</i> <i>impedance</i>	+4dB 10 kOhms	Balanced JACK	
EQ	<i>HIGH</i>	±15dB @ 12kHz, SHELIVING		
	<i>MID</i>	±12dB @ 2.5kHz, PEAKING		
	<i>LOW</i>	±15dB @ 80Hz, SHELIVING		
MASTER SECTION				
MIX output (balanced)	<i>output level</i>	+4dB /-26dB	Balanced XLR-M	
MIX output (unbalanced)	<i>output level</i>	+4dB	Unbalanced JACK	
MIX B output	<i>output level</i>	0dB	Balanced XLR-M	
MONO output	<i>output level</i>	+4dB	Balanced XLR-M	
GROUP output	<i>output level</i>	+4dB	Balanced JACK	
CONTROL ROOM output	<i>output level</i>	+4dB	Unbalanced JACK	
MONITOR output	<i>output level</i>	+4dB	Unbalanced JACK	
AUX sends	<i>output level</i>	+4dB	Unbalanced JACK	
AUX return	<i>sensitivity</i>	0dB	Unbalanced JACK	
TAPE	<i>IN</i>	-20dB	RCA phono	
	<i>OUT</i>	0dB		
HEADPHONES output	<i>minimum impedance</i> <i>output level</i>	200 Ohms 2x160mW	Stereo JACK	
DSP SECTION (SWING20FX only)				
A/D Converters	<i>bit</i>	18		
D/A Converters	<i>bit</i>	18		
Internal Dynamics	<i>bit</i>	24		
Sampling Frequency	<i>KHz</i>	44.1		
Presets Numbers		15		
Effects		Hall Reverb, Room Reverb, Plate Reverb, Stereo Delay		
GENERAL SPECIFICATIONS				
Frequency response		20Hz - 60kHz, ±1dB		
Hum & Noise		-90dB		
THD		<0.005% @ 1kHz		
Crosstalk	<i>FADER</i>	-85dB		
	<i>MUTE</i>	-84dB		
Maximum levels	<i>MIC IN</i>	+14dBu		
	<i>TAPE IN</i>	+16dBu		
	<i>other inputs</i>	+22dBu		
	<i>MIX OUT (XLR)</i>	+28dBu		
	<i>other outputs</i>	+22dBu		
Power supply		see label on the apparatus		
Weight	<i>kg</i>	11		
Dimensions	<i>mm (WxHxD)</i>	630x92x375		

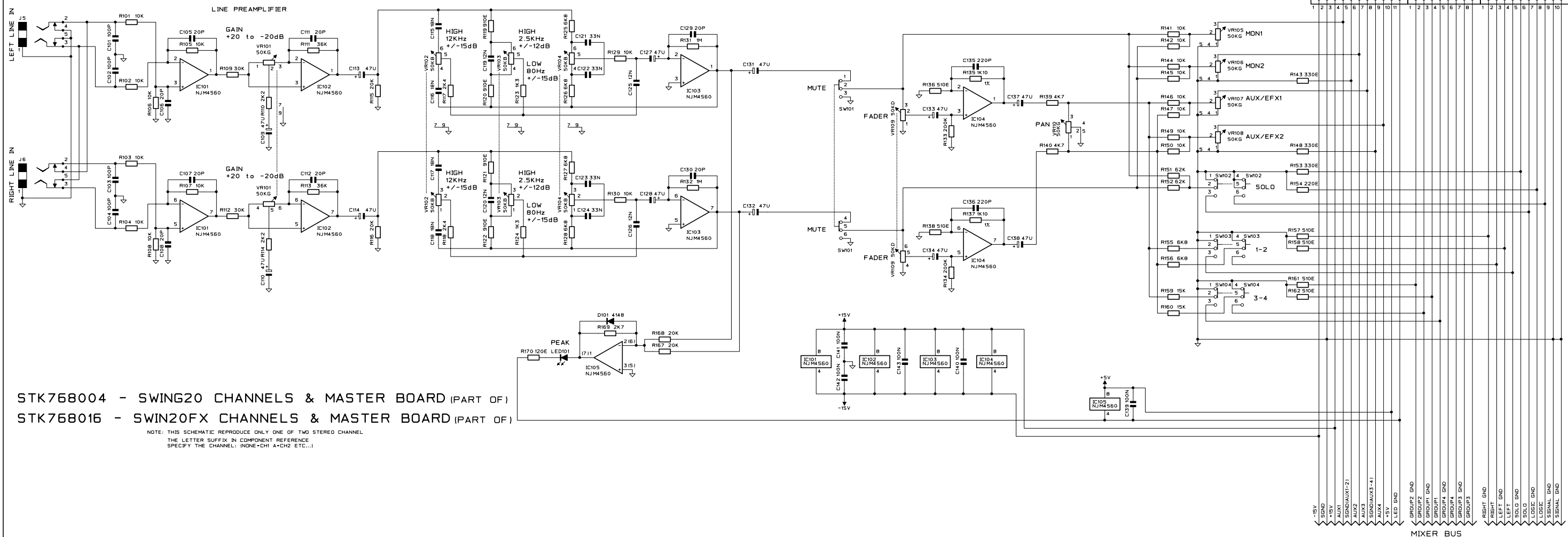
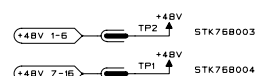
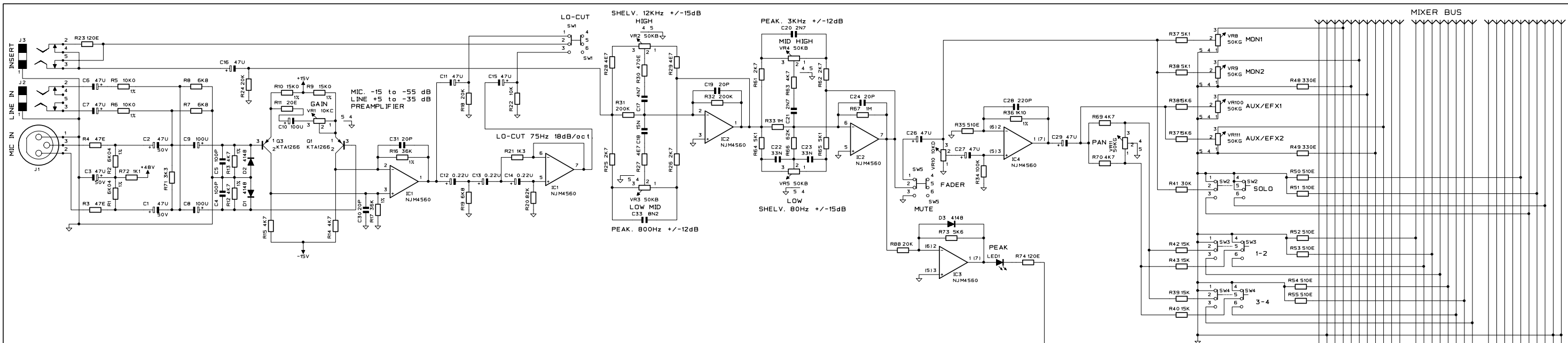
SWING20 BLOCK DIAGRAM

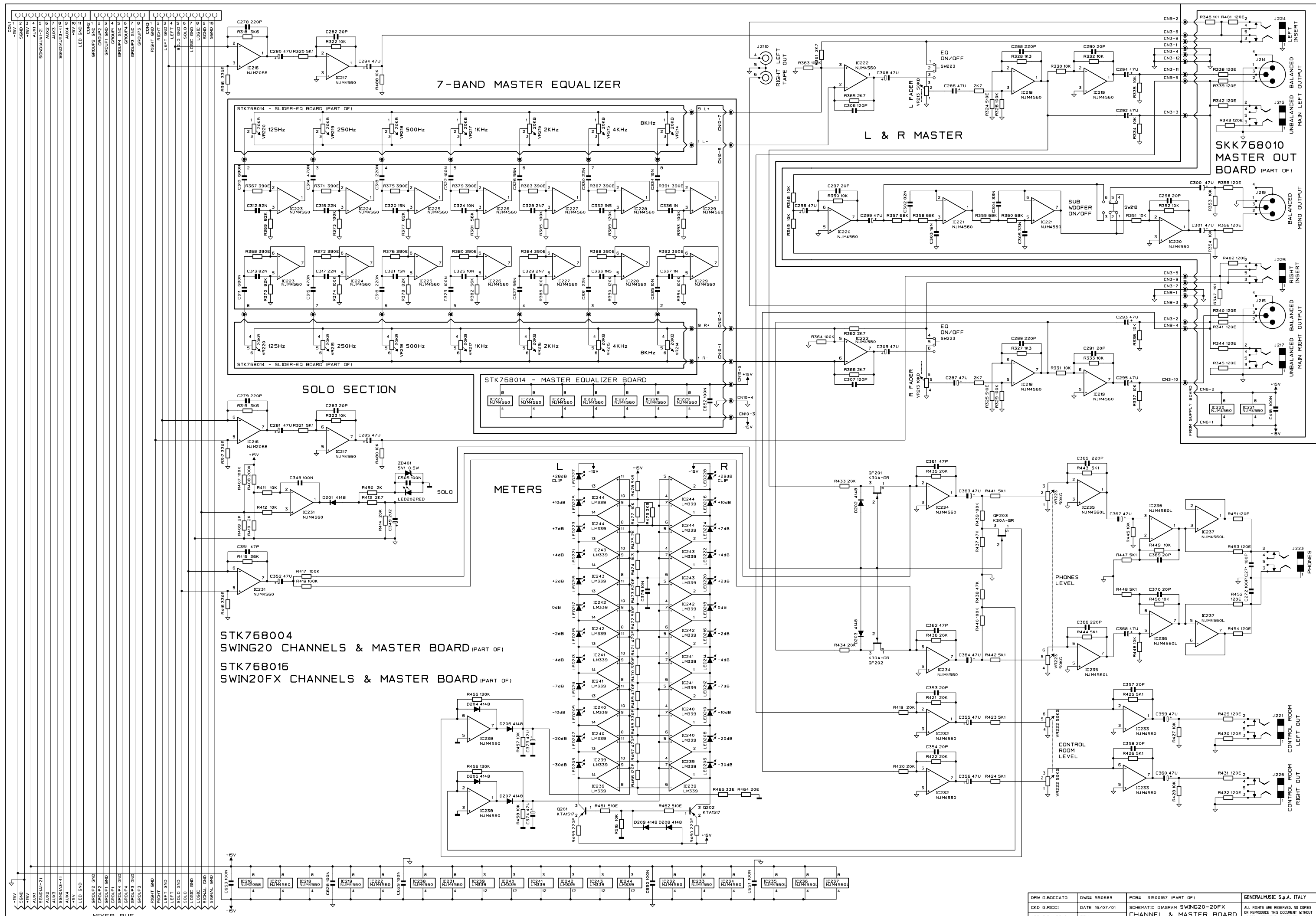


SWING20FX BLOCK DIAGRAM









STK768004
SWING20 CHANNELS & MASTER BOARD (PART OF)

STK768016
SWIN20FX CHANNELS & MASTER BOARD (PART OF)

SWING20 & SWING20FX SPARE PART LIST

Code	Ref	Description
Accessories		
277369		Swing20 Owner's Manual (English-Italian)
277365		Swing20FX Owner's Manual (English-Italian)
130297		Mains Cable (EU)
Mechanical Parts		
STK667009	28	Swing20 Bottom Chassis
STK667008	3	Swing20 Top Chassis
STK667005	28	Swing20FX Bottom Chassis
STK667004	3	Swing20FX Top Chassis
STK340008	27	Adhesive Rubber Foot
STK340000	8	High Switch Actuator
STK340001	5	Low Switch Actuator
STK340002	6A	Red Knob
STK340003	6B	Blue Knob
STK340004	6C	Gray Knob
STK340005	6D	Yellow Knob
STK340006	6E	White Knob
STK340007	4	Slider Knob for 60mm Slider Pot
STK340009		White Knob for Effects
STK140001		U Contact Strip (Specify Contacts)
Mains Assembly		
STK110600	10	Mains Inlet with 5x20mm Fuse Holder
110017		T500mA Fuse 5x20mm (EU)
STK110285	9	4A 250Vac Bipolar Power Switch
STK110203	12	Black Bipolar Switch
STK237001	17	Shielded Transformer (PT2043) 230Vac/20+20/46Vac
Supply Board		
STK768009	25	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
STK100059	*	7805 +5V 1A Voltage Regulator
STK090002	*	KTC2238AY Npn Transistor
STK090000	*	KTA1266Y TO92 LN Pnp Transistor
340079	*	TO220 Mica Washer
STK080156	*	1N4002 1A 100V Rectifier Diode
STK080167	*	1N5403 3A 300V Rectifier Diode
STK080201	*	1N4756A 47V 1W 5% Zener Diode
STK110300	*	Relay 12V / 1Switch 1A 250Vac
CH1-6 Mono Channel Board		
STK768003	1	CH1-6 Mono Channel Board (Pcb#31500166)
STK140000	*	Vertical Jack Stereo Female Socket
STK141000	*	Vertical Female XLR Socket
STK075001	*	10KC Rotary Potentiometer with Central Click
STK074000	*	50KB Rotary Potentiometer with Central Click
STK074001	*	50KG Rotary Potentiometer with Central Click
STK074002	*	100KG Rotary Potentiometer with Central Click
STK073001	*	10KD 60mm Slider Potentiometer
STK090000	*	KTA1266Y TO92 LN Pnp Transistor
STK110201	*	2sw 2pos Vertical Slider Switch
080103	*	1N4148 100mA 75V Signal Diode
STK081000	*	1N4148 100mA 75V Signal Diode
STK106000	*	NJM4560M SOIC Dual Operational Amplifier
Channels & Master Board		
STK768004	26	Swing20 - Channels & Master Board (Pcb#31500167)
STK768016	26	Swing20FX - Channels & Master Board (Pcb#31500167)
STK140000	*	Vertical Jack Stereo Female Socket
STK141000	*	Vertical Female XLR Socket
STK140201	*	Vertical Rca Quad Female Socket
STK075001	*	10KC Rotary Potentiometer with Central Click
STK074000	*	50KB Rotary Potentiometer with Central Click
STK074001	*	50KG Rotary Potentiometer with Central Click
STK074002	*	100KG 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
STK090001	*	2SK30AGR TO92 LN N-Channel Jfet
STK110201	*	2sw 2pos Vertical Slider Switch
STK080232	*	5V1 0.5W 5% Zener Diode
080103	*	1N4148 100mA 75V Signal Diode
STK081000	*	PMLL4148 Smd 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

DSP Board		
STK768000	DSP Board (SWING 20FX only)	
Master Equalizer Board		
STK768014	Master Equalizer Board	
STK106000	*	NJM4560M SOIC Dual Operational Amplifier
Slider-Eq Board		
STK768015	Slider-Eq Board	
STK073004	*	2x20KB 30mm Slider Potentiometer with C.Click
Master Out Board		
STK768010	18	Master Out Board
STK140000	*	Vertical Jack Stereo Female Socket
STK141002	*	Vertical Male XLR Socket
STK106000	*	NJM4560M SOIC Dual Operational Amplifier

Note:

-	All dimensions are in mm unless otherwise specified.
-	Each spare part is single quantity unless otherwise specified.
-	Asterisk prefix explanation: Omitted = First level spare part. One asterisk = Second level, part of previous listed first level part. Two asterisk = Third level, part of previous listed second level part. Three asterisk =
-	Any request for not above mentioned part must encompass specific description including: 1) Model name, 2) Section name, 3) Module code, 4) Reference name, 5) Quantity number.