RODEC®

Manufactured by: Transtel Sabima Ltd.
Duboistraat 50
B-2060 Antwerpen Belgium
Phone: 00 32(0)3/237-36-07
Fax: 00 32(0)3/216-97-62
e-mail: info@transtel_sabima.be

SERVICE MANUAL MX18/MX180/MX180 MKII/MX34

Version: 1.1

1.0.0. TABLE OF CONTENTS

1.0.0. Table of contents p.1
2.0.0. Operating instructions p.2
- Specifications p.2
- Safety instructions p.2
- Installation of the mixing panel p.3
- Frontpanel, switches and control p.3
- Connections p.4
- Master output 3V in stead of 1.5V p.5
- Operating instructions p.5
- Subsonic filter p.6
- Remote control option p.6
- Pictures p.7

3.0.0. Technical information p.8
3.1.0. MX180 p.8
3.1.1. Part list p.8
3.1.2. Wiring diagram p.9
3.2.0. MX34 p.10
3.2.1. Part list p.10
3.2.2. Wiring diagram p.11
3.3.0. Options p.12
3.4.0. Difference between RC 25 xxx and RC 27 xxx p.12
3.5.0. Signal numbers p.12

4.0.0 Schematic diagrams p.13
4.1.0. RC 27 053 LED display MX180/MX34 p.13
4.2.0. RC 27 059 Busbar unit MX34 p.14
4.3.0. RC 27 150 Input unit MX180/MX34 p.15
4.4.0. RC 27 154 / RC 27 254 Supply unit MX180/MX34 p.16
4.5.0. RC 27 155 Busbar unit MX180 p.16
4.6.0. RC 27 167 Symmetrical output unit MX100/MX180/MX34 p.17
4.7.0. RC 27 251 DJ Input unit MX180/MX34 p.17
4.8.0. RC 27 252A Output unit MX180/MX34 p.18

5.0.0. Parts lists p.19
5.1.0. RC 27 053 LED display MX180/MX34 p.19
5.2.0. RC 27 059 Busbar unit MX34 p.19
5.3.0. RC 27 150 Input unit MX180/MX34 p.19
5.4.0. RC 27 154 / RC 27 254 Supply unit MX180/MX34 p.20
5.5.0. RC 27 155 Busbar unit MX180 p.21
5.6.0. RC 27 167 Symmetrical output unit MX100/MX180/MX34 p.21
5.7.0. RC 27 251 DJ Input unit MX180/MX34 p.21
5.8.0. RC 27 252A Output unit MX180/MX34 p.22

6.0.0. Parts discription p.24
6.0.1. Front view p.24
6.0.2. Front part order numbers p.24
6.0.3. Back view p.25
6.0.4. Back part order numbers p.25

SPECIFICATIONS

Inputs	Input sensitivity	Signal/Noise Ratio	Remarks
PHONO 1-4 (8)	2mV/50kΩ	-74dB	RIAA correction
AUX 1-4 (8)	200mV/100kΩ	-86dB	
CD/DAT 1-4 (8)	200mV/100kΩ	-86dB	
MD(VIDEO) 1-4 (8)	200mV/100kΩ	-86dB	
MIC 1-4 (8)	4.8mV/4kΩ	-80dB	Panoramic control
symmetrical			
MIC DJ symm	1.7mV/1.2kΩ	-83dB	Equalizer
assym.	1.2mV/22kΩ	-85dB	
Outputs			
Master 1-2 assym.	1.5V(3V)/10kΩ		Subsonic filter
Master 1 symm.	1.5V(3V)/600Ω		Subsonic filter
AUX	770mV/10kΩ		
Recording 1-4 (8)	500mV/10kΩ		Recording out selector
Phones	10V/600Ω		Phones 200-600Ω

- Tone controls:	Music:	Bass +/-13dB @ 100Hz Middle +/-13dB @ 1kHz High +/-13dB @ 10kHz	
- Subsonic filter:	-25dB @ 10Hz		
- Power source:	Panels are leaving the factory on: 230V / 50Hz-60Hz on request: 100V-117V / 50Hz-60Hz		
- Fuse:	T125mA		
- Power consumption:	OFF=2.2VA	ON=16VA	
- Approbation:	CE-approved		
- Dimensions:	MX180MKII		MX34
	Front: 482 x 310 (19" x 7HE)		610 x 310 (24" x 7HE)
	Chassis: 444 x 295 x 150		585 x 295 x 150
- Weight:	7.5kg		9.4kg

DESIGN AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

MODEL MX180MKII / MX34
SERIAL NUMBER ..... (on the back of the set)

Please give model and serial number by every information requested.

Thank you very much for purchasing the **RODEC** mixing panel MX180MKII / MX34.
This mixing panel is a topline mixing panel, capable of outstanding performance in combination with high grade systems.

SAFETY INSTRUCTIONS

1) Do not expose the set to rain or water. Do not spill liquid or insert metal objects inside the set. Rain, water or liquid such as cosmetics as well as metal, may cause electric shocks, which can result in fire or shock hazard. If anything gets inside, unplug the power cord.

2) Frayed cords and broken plugs may cause a fire or shock hazard. Do not damage the power cord. When removing the power cord from wall outlet, be sure to unplug by holding the plug attachment and not pulling the cord.

3) Do not open the set, there are no serviceable parts inside.
Only qualified service technicians can service inside your set.

4) Operate the set only from a power source which is indicated on the rating label at the back of the set.

5) Do not use chemical products to clean the set. Do not use contact spray or other products in the faders. The contact spray can damage the faders.

INSTALLATION OF THE MIXING PANEL

1) The set can be used in every position.

2) Don't place the set into direct sunlight, or in a warm moist or dusty place.

3) To avoid disturbances, do not place the set in the neighbourhood of disturbing apparatuses.

FRONTPANEL, SWITCHES AND CONTROL

1) **Power switch**
Controls the supply of AC power to the set. One push turns the mixing panel on, a second push turns it off. It remains in a stand-by mode.

2) **Power / on indicators**
These indicators light up when the power is on.

3) **VU meter**
These meters indicate the PFL or output levels.

4) **Mode Switch**
This switch is to be used to set the mixing panel in mono or stereo mode.

5) **Balance control**
The balance between the amount of sound on the left and on the right is adjusted by using this knob. When it is set to the center position, the gain is the same for the left and the right channel.

6) **Phones control**
This button is used to adjust the volume of the headphones.

7) **Phones output**
Output for high level headphone monitoring. (Headphones 200-600Ω)

8) **PFL switch**
This switch is used to listen to any input signal before you fade in this signal.

9) **Channel fader**
Volume control for every input.

10) **DJ mike fader**
Volume control for DJ mike

11) **Master output fader**
Volume controls final output of mixer towards slave or integrated amplifers.

12) **Equalizer controls**
This is used to regulate the degree of treble, middle and bass in the sound.

13) **Talk-over control**
Variable stage gain control level music suppression.

14) **Level adjuster**
Mike level for accurate adjustment of different types of microphones.

15) **DJ micro input**
Microphone input with priority on the input on the back of the set.

16) **Level adjuster**
These controls are used to adjust input levels of the different inputs.

17) **Input selector**
This switch is used to select the input signal: PHONO/AUX/CD/DAT/MD or MICROPHONE.

18) **Remote control switch option**
This switch is used to start and/or stop any connected apparatus from the mixing panel.

19) **Equalizer**
Triple tone control for DJ microphone.

20) **Pan Mic**
Panoramic control only for microphone input. With this button you can place the mike signal somewhere between left and right.

21) **Record Select**
This switch is used to make recordings with or without the DJ microphone.
+ DJ MIC : in this position you add the signal of the DJ mike to the music.
- DJ MIC : in this position you record only the signal from channel 1 - 4 (8).
This switch has no influence on the master outputs.

CONNECTIONS

A) **PHONO input**
Phono input with a sensitivity of 2mV and build in RIAA correction.

B) **Ground**
If the recordplayer has a ground wire, connect it to the ground terminal.

C) **MD(VIDEO)/AUX input**
Input with a sensitivity of 220mV. To connect different apparatuses as a tuner, tape recorder, mini disc, cassette recorder or (HIFI) video recorder.

D) **CD/DAT input**
Input for compact disc players and digital tape recording.

E) **Micro input**
Balanced microphone input. To reduce the interference on the microphone cord, you have to use a microphone with balanced output. The use of a microphone without balanced output is possible in this case, connect the mike as shown on the back of the panel.

F) **Recording outputs**
Outputs to connect cassette recorder or (HIFI) video recorders to make recordings. These outputs can be switched with or without recording the DJ microphone signal. (21)

G) **DJ mike input**
Balanced microphone input with a sensitivity of 1,7mV.
This input is in combination with the input JACK (15) on the front of the set. The JACK (15) has priority on the XLR input (G) on the back of the set.

H) **Effects IN/OUT**
Input and output to connect effect apparatus to the microphone channel. If there is no plug in the JACK, the microphone channel works normally, if there is a plug inserted in the JACK, the internal link is interrupted. The sensitivity of this IN/OUT connection is 160mV.

I) **AUX output**
Output for different apparatuses as integrated amplifiers or recorders.
The output level is 770mV.

J) **Equalizer IN/OUT**
Terminals to connect audio processors such as a graphic equalizer, compressor or limiter. When the terminal is not being used, connect the OUT and IN for each channel with a jumper pin.
WHEN THE SET IS BUILD IN, TAKE CARE THAT THERE'S NOTHING IN CONTACT WITH THE JUMPERS!!

K) **Master output**
Output for slave or integrated amplifier. The output level can be adjusted with the master fader (11). The maximum output is 1,5V.
With the balance control (5) you can make the balance between left and right.
If the slave amplifier needs more than 1,5V, the master output can be changed into 3V, by disconnecting two links inside the set on circuit RC 25 252.

L) **Remote control terminal option**
The terminal is completely independent of the electronics of this set.
Only for switching low current/low voltage.

Please use signal cables shorter than 1 meter for the inputs and the outputs.

OPERATING INSTRUCTIONS

1) Press the power switch (1) to turn the power supply on. The power indicators (2) will light up and a few seconds later the mixing panel will be in operation, ready state.

2) Connect the headphones to phones output (7).

3) Choose with input switch (17) the right source.

4) Switch the PFL button (8) in position ON to listen at the desired source. With the PFL of this mixing panel, you can listen to two or more sources at the same time. You can see the choosen signal on the level meters (3). With the SUM button (8) you can listen to the mixed signal. All these switches do not change the output signal. Adjust with the level control (18) the input signal so, that the red indicators of the level meters (3) light sometimes. Adjust if necessary the quality of the sound with the equalizer (12).

   LOOK OUT : - The equalizer at each input is used to adjust the different sound between the sources. To correct the acoustic of the room it's better to use an external equalizer, connected at the equalizer IN/OUT (J).
   - The pan MIC functions only with the mike input.

5) Slide up the fader (9) of the choosen source.

6) Adjust with the master (1) the volume.

7) Correct if necessary the balance with button (5), for monophonic sound set switch (4) in mono position.

8) To change the source, repeat point 3) to 5).

9) To add a microphone signal, connect the mike to the MIC input (15) or (G) input, (15) has always priority to input (G). Turn button (14) and (13) to zero, slide up the MIC fader (10) to maximum and adjust with the level button (14) the volume of the microphone. Adjust with the equalizer (19) the sound of the mike. To use the talk over, adjust the talk over button (13) (0= no decrease, 10= total decrease). With the pan MIC (20), the DJ microphone signal can be placed somewhere between left and right.

SUBSONIC FILTER

The two master outputs have a subsonic filter to protect the bass loudspeakers. This filter can not be switched off.

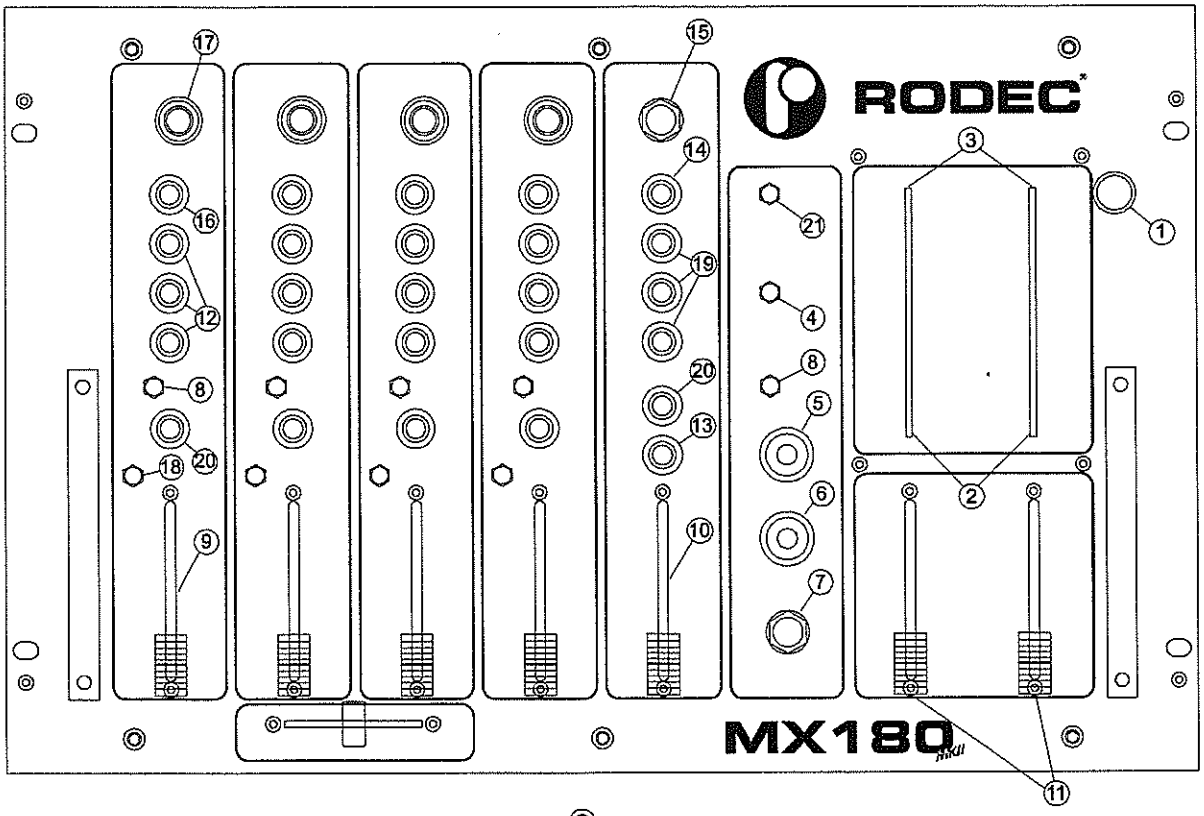
REMOTE CONTROL SWITCH OPTION

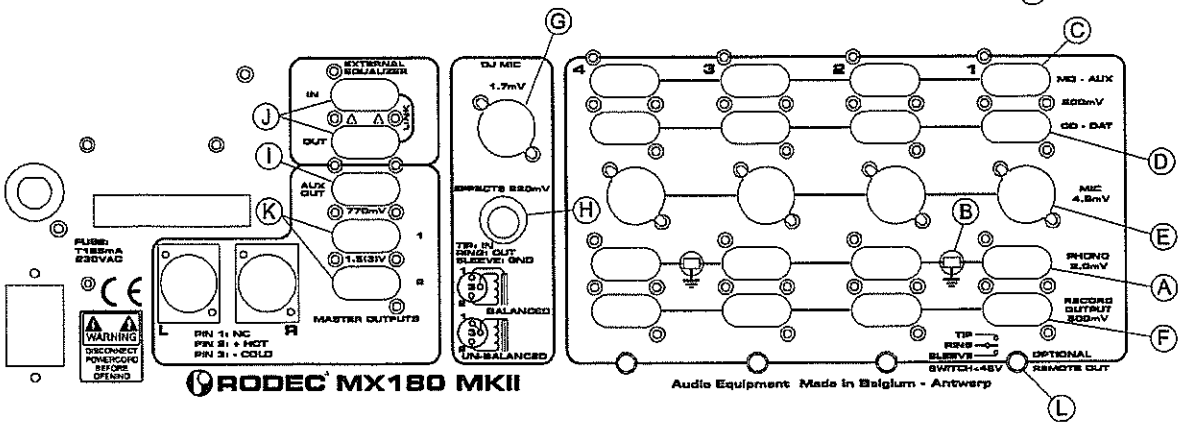
With the remote control switch, you can control for each channel one apparatus.

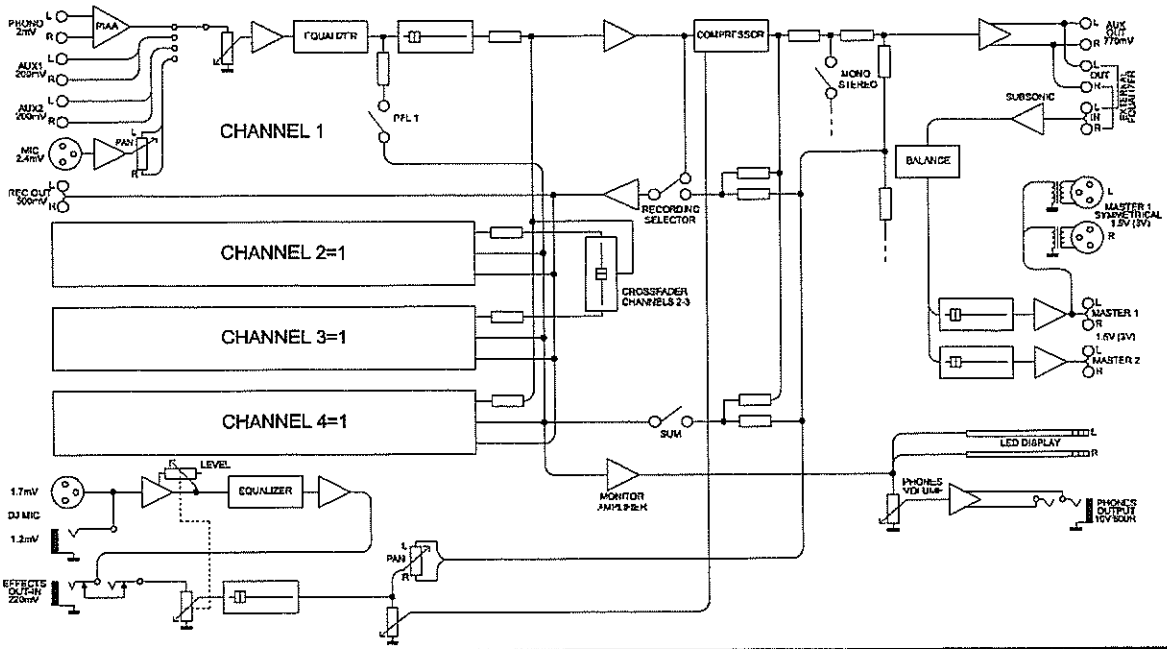
Switch (18) has three positions: 1) rest
2) push up
3) push down

With these three positions it is possible to control two functions of each apparatus.
- A turntable with a combinated start/stop can be started and stopped from one position.
- A cassette recorder with connection for remote control can be started by pushing down the switch.

Consult the service manual of each apparatus to find the right way of connection.


RODEC
MX180 MKII


RODEC MX180 MKII
Audio Equipment Made in Belgium - Antwerp


CHANNEL 1
CHANNEL 2=1
CHANNEL 3=1
CHANNEL 4=1
EQUALIZER
COMPRESSOR
BALANCE
SUBSONIC
LED DISPLAY

3.0.0. TECHNICAL INFORMATION

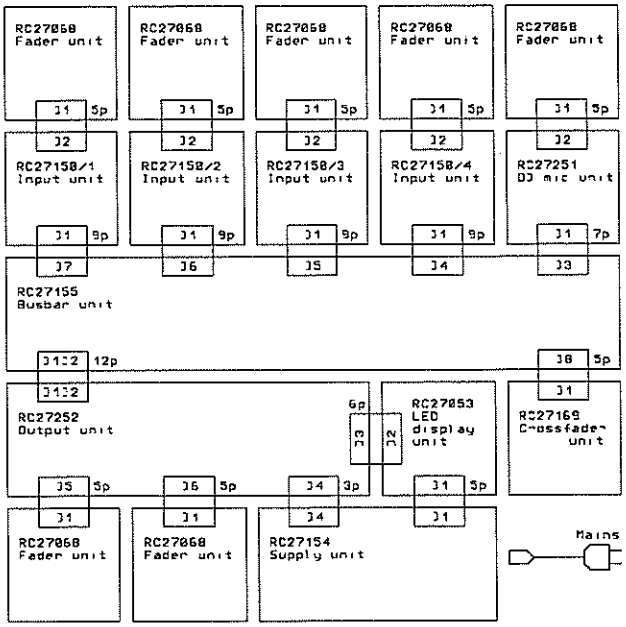
3.1.0. MX180

3.1.1. PART LIST

Refdes	Device	Order code	Function
	Number label	RC 01 016	
	Apparatus foot	RC 01 018	
	Bottombox MX180 MKII/MX240	RC 01 035	
	Connectionpanel MX180 MKII	RC 01 132	
	Folded supporting lath MX180MKII	RC 01 229	
	Imbus bolt M5x10 black	RC 05 018	
	Knob 10mm black	RC 05 033	
	Knob 16mm black	RC 05 034	
	Knob 22mm black	RC 05 035	
	Nutcover 10mm	RC 05 036	
	Nutcover 16mm	RC 05 037	
	Cap 10mm red	RC 05 040	
	Cap 10mm grey	RC 05 041	
	Cap 10mm black	RC 05 042	
	Cap 16mm black	RC 05 044	
	Cap 22mm black	RC 05 045	
	Slideknob grey - black	RC 05 107	
	Slideknob CF grey	RC 05 108	
	Handle 120mm	RC 05 125	
	Frontplate MX180 MKII	RC 05 321	
	Earth terminal	RC 10 014	
	Jumper plug 18mm	RC 10 022	Equalizer in/out
	Power cable 3pol	RC 12 002	
	Fuse T125mA 5x20mm	RC 12 008	
	Mains filter 1A	RC 12 017	Mains input
	Fuse holder	RC 12 018	
	Transfo 22-0-22V 23VA (MX18/180/34)	RC 21 005	
	Transfo 22-0-22V 22VA (MX180 MKII)	RC 21 023	From serial nr. 207124
	LED display unit MX180/180 MKII/240/34	RC 27 053	
	Alps fader unit	RC 27 068	Channel faders + Master faders
	Input unit MX180 MKII/MX240	RC 27 150	
	Supply unit MX180 MKII/MX240	RC 27 254	
	Busbar unit MX180 MKII	RC 27 155	
	Sym output unit MX100/180/180 MKII/34	RC 27 167	
	Alps crossfader unit	RC 27 169	Cross fader
	DJ input unit MX180 MKII	RC 27 251	
	Output unit MX180/MX180 MKII/MX34	RC 27 252A	
	Flat cable 5p/15cm	RC 29 031	
	Floche + 2 x XLR	RC 29 034	Symmetrical output left + right
	Flat cable 5p/26cm	RC 29 035	
	Flat cable 3p/25cm	RC 29 041	
	Mains wire MX100/MX180 MKII/MX240/MX34	RC 29 042	
	Solder lug 3mm	RC 32 001	
	Hole plug 6.5mm black	RC 32 035	
	Thread forming screw M3x6 POZ yellow	RC 35 001	
	Thread forming screw M3x8 POZ	RC 35 002	
	Nut M3 brass	RC 35 005	
	Bold M3x25 CFH black	RC 35 007	
	Nut M5 inox A2	RC 35 012	
	Blocsur JZE 8	RC 35 014	
	Blocsur JZ 3	RC 35 015	
	Blocsur JZ 5	RC 35 018	
	Washer nylon 3mm	RC 35 020	

	Blocsur JZE 10	RC 35 022	
	Spacer h15/3 nylon	RC 35 023	
	Washer nylon 4/12	RC 35 031	
	Washer nylon 4/8	RC 35 032	
	Hi-Lo 3.2x8.5	RC 35 102	
	Thread forming screw M4x16 THP	RC 35 106	
	Thread forming screw M3x10 CFH	RC 35 107	
	Washer D3-h3 nylon	RC 35 109	
	Bold M3x6 CFH black	RC 35 116	
	Blocsur JZ7	RC 35 117	
	Bold VK M3x10 black	RC 35 122	
	Protection nut power switch	RC 35 124	
	Helavia A1 20mm	RC 40 012	
	Tape 38mm	RC 41 010	
	Tape 15mm	RC 41 011	
	Anti dust cloth 90x100	RC 41 022	
	Anti dust cloth 240x105	RC 41 023	
	Plastic bag 70x50	RC 42 016	
	Plastic bag 18 x 25	RC 42 018	
	Cardboard mixer holder MX180MKII/MX240	RC 42 039	
	Box MX180 MKII	RC 42 127	
	Users manual MX180 MKII/MX34	RC 45 020	
	Warranty card	RC 45 022	
	Pink pack message	RC 45 023	

3.1.2. WIRING DIAGRAM



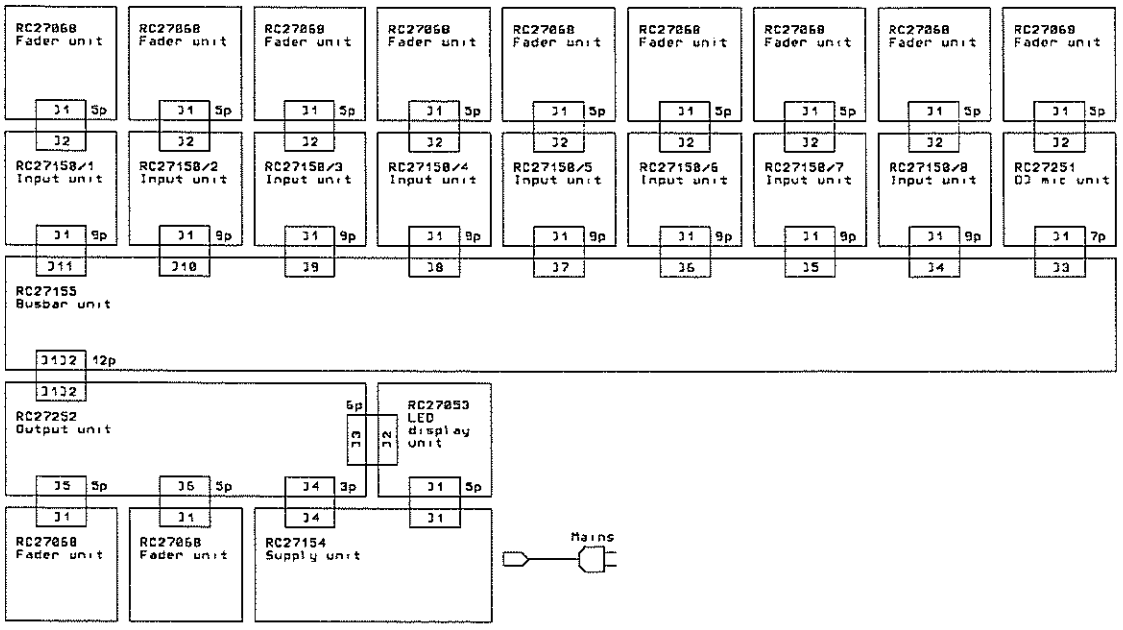
3.2.0. MX34

3.2.1. PART LIST

Refdes	Device	Order code	Function
	Number label	RC 01 016	
	Homologation label	RC 01 017	
	Apparatus foot	RC 01 018	
	Connectionpanel MX34	RC 01 038	
	Bottombox MX34	RC 01 039	
	Folded supporting lath MX34	RC 01 041	
	Label Made in Belgium	RC 01 048	
	Knob 10mm black	RC 05 033	
	Knob 16mm black	RC 05 034	
	Knob 22mm black	RC 05 035	
	Nutcover 10mm	RC 05 036	
	Nutcover 16mm	RC 05 037	
	Cap 10mm red	RC 05 040	
	Cap 10mm grey	RC 05 041	
	Cap 10mm black	RC 05 042	
	Cap 16mm black	RC 05 044	
	Cap 22mm black	RC 05 045	
	Frontplate MX34	RC 05 046	
	Slideknob grey - black	RC 05 107	
	Earth terminal	RC 10 014	
	Jumper plug 18mm	RC 10 022	Equalizer in/out
	XLR 3pol	RC 10 023	
	DIN 3pol/5pol	RC 10 026	
	Power cable 3pol	RC 12 002	
	Fuse T125mA 5x20mm	RC 12 008	
	Mains filter 1A	RC 12 017	Mains input
	Fuse holder	RC 12 018	
	Transfo 22-0-22V 23VA	RC 21 005	
	Capacitor multilayer 22n	RC 22 303	
	Resistor Fuse 10R 1/3W	RC 23 601	
	Input unit MX180/MX34	RC 27 050	
	LED display unit MX180/180 MKII/240/34	RC 27 053	
	Busbar unit MX34	RC 27 059	
	Alps fader unit	RC 27 068	Channel faders + Master faders
	DJ input unit MX180/MX34	RC 27 151	
	Supply unit MX180/MX180 MKII/MX240/MX34	RC 27 154	
	Output unit MX180/MX180 MKII/MX34	RC 27 252A	
	Flat cable 5p/15cm	RC 29 031	
	Flat cable 3p/25cm	RC 29 041	
	Solder lug 3mm	RC 32 001	
	Hole plug 6.5mm black	RC 32 035	
	Hole plug 22mm black	RC 32 036	
	Thread forming screw M3x6 POZ yellow	RC 35 001	
	Nut M3 brass	RC 35 005	
	Bold M3x25 CFH black	RC 35 007	
	Blocsur JZE 8	RC 35 014	
	Blocsur JZ 3	RC 35 015	
	Blocsur JZE 10	RC 35 022	
	Spacer h15/3 nylon	RC 35 023	
	Washer nylon 4/12	RC 35 031	
	Washer nylon 4/8	RC 35 032	
	Hi-Lo 3.2x8.5	RC 35 102	
	Thread forming screw M4x16 THP	RC 35 106	
	Thread forming screw M3x10 CFH	RC 35 107	
	Blocsur JZ6	RC 35 115	
	Bold M3x6 CFH black	RC 35 116	

	Blocsur JZ7	RC 35 117	
	Bold CK M3x70	RC 35 118	
	Bold VK M3x10 black	RC 35 122	
	Protection nut power switch	RC 35 124	
	Helavia A1 20mm	RC 40 012	
	Tape 38mm	RC 41 010	
	Tape 15mm	RC 41 011	
	Anti dust cloth 90x100	RC 41 022	
	Anti dust cloth 390x105	RC 41 024	
	Plastic bag 83x50	RC 42 015	
	Plastic bag 21x14	RC 42 017	
	Isomo MX180/MX34	RC 42 021	
	Box MX34	RC 42 029	
	Pack cardboard MX34	RC 42 030	
	Users manual MX180 MKII/MX34	RC 45 020	
	Warranty card	RC 45 022	
	Pink pack message	RC 45 023	

3.2.2. WIRING DIAGRAM



3.3.0. OPTIONS.

- RC 29 043: Symmetrical output unit MX100/MX180/MX34
  This is a kit to provide a symmetrical earthfree output with transformer outputs on an MX180 or MX34 it's already standard on the MX180 MKII.

- RC 29 023: Fader unit P&G
  This is an upgrading kit for a fader of an MX18 or an MX34. This is a Penny & Giles high quality studio fader that replaces the standard Alps faders.

- RC 29 024: DIN 3pol + switch
  This is a remote switch option to put on the MX180 or MX34, to start or stop apparatus from the frontpanel with a switch.

- RC 29 044: Mini JACK + switch
  This is a remote switch option to put on the MX180 MKII, to start or stop apparatus from the frontpanel with a switch.

- RC 29 030: P&G crossfader unit
  This is a crossfader option for an MX18 and MX34. An MX180 and an MX180 MKII has standard a crossfader (not replaceable by a P&G crossfader).

3.4.0. DIFFERENCE BETWEEN RC25xxx AND 27xxx

- RC 25 xxx = the order code for only the PCB (without the components)
- RC 27 xxx = the order code for the assembled PCB

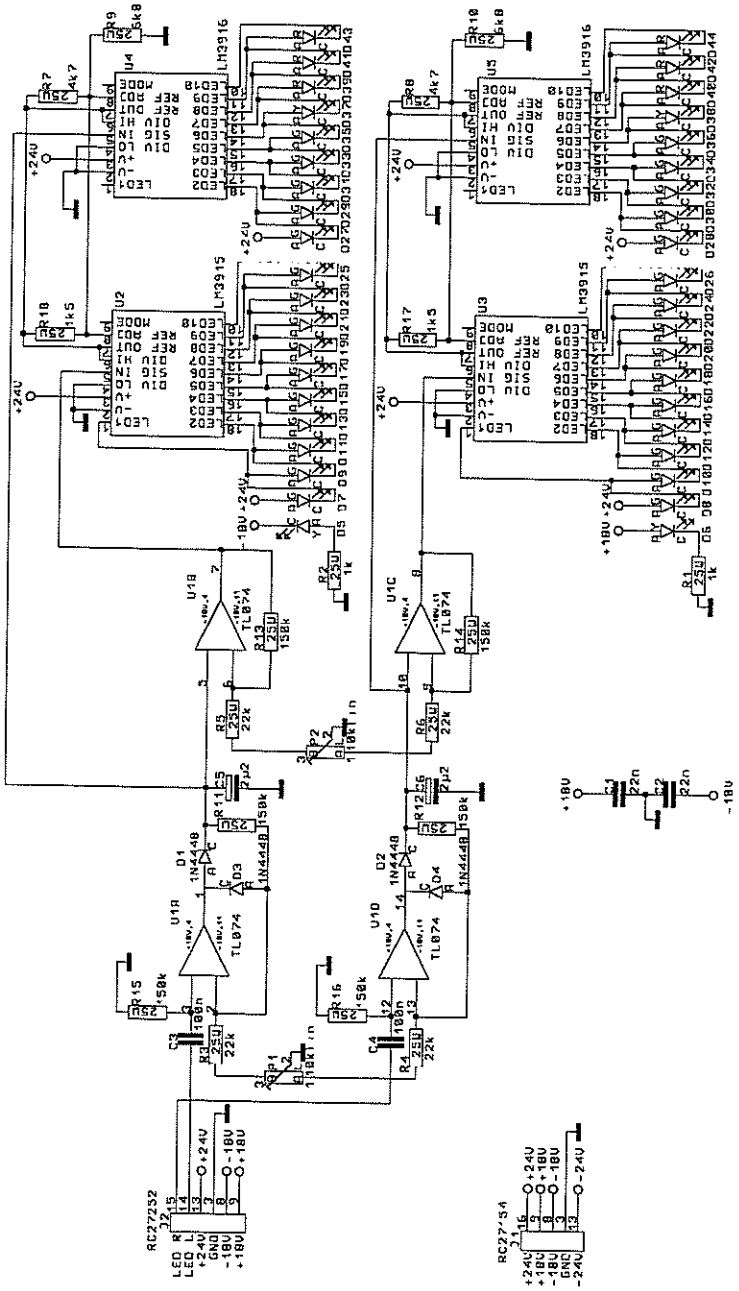
3.5.0. SIGNAL NUMBERS

The following numbers are used for the numbering of the signals in the several connectors which are connecting the different PCB's.

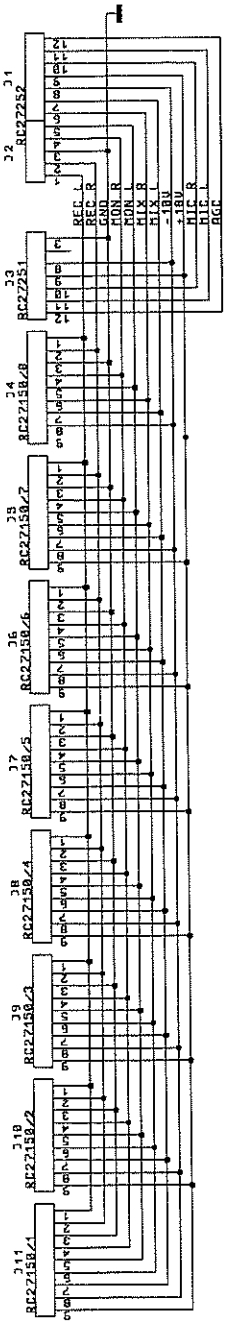
NR 1 → REC L: The left record signal
NR 2 → REC R: The right record signal
NR 3 → GND: The ground inside the table
NR 4 → MON R: The right signal, selected with the PFL switches of PCB RC 27 150
NR 5 → MON L: The left signal, selected with the PFL switches of PCB RC 27 150
NR 6 → MIX R: The right mix signal
NR 7 → MIX L: The left mix signal
NR 8 → -18V: -18V Power supply
NR 9 → +18V: +18V Power supply
NR 10 → MIC R: The right DJ mic signal
NR 11 → MIC L: The left DJ mic signal
NR 12 → AGC: The (automatic gain control) compressor signal, depending on the position of the Talk-over knob
NR 13 → +24V: The +24V power supply for the LED meters
NR 14 → LED R: The right LED signal
NR 15 → LED L: The left LED signal
NR 16 → -24V: The -24V delayed power supply for the relais
NR 17 → +27V: The +27V power supply for the headphone amplifier
NR 18 → -27V: The -27V power supply for the headphone amplifier

4.0.0 SCHEMATIC DIAGRAMS.

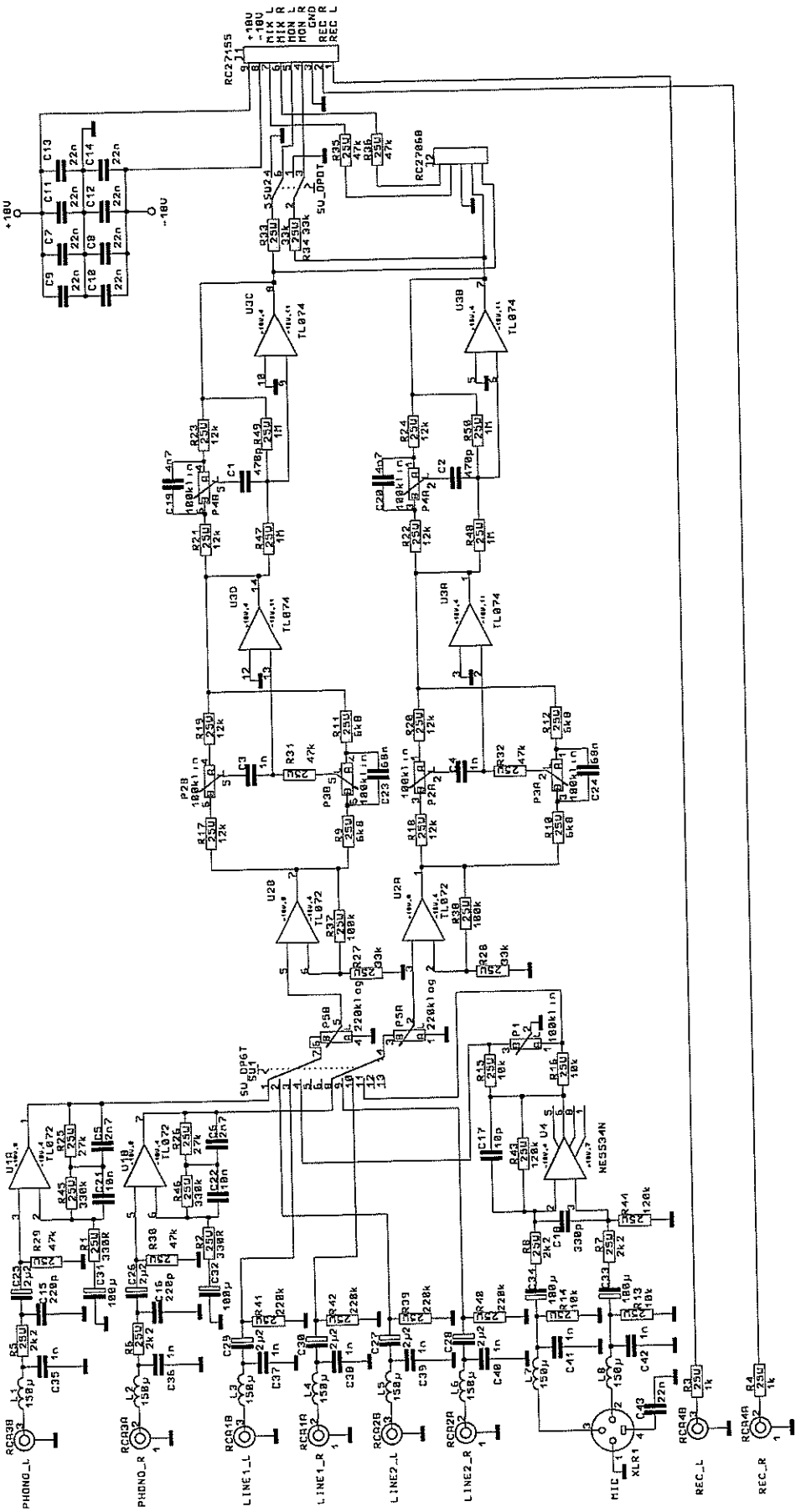
4.1.0. RC 27 053 LED DISPLAY MX180/MX34



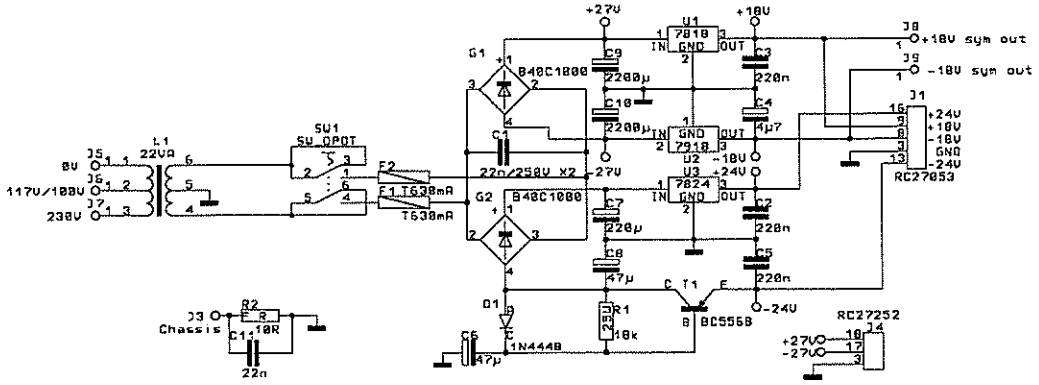
4.2.0. RC 27 059 BUSBAR UNIT MX34



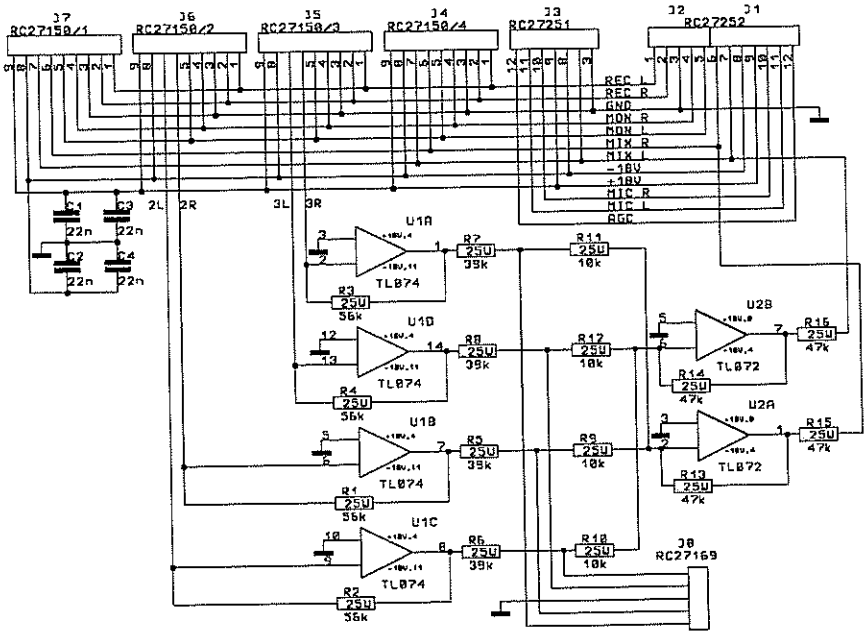
4.3.0. RC 27 150 INPUT UNIT MX180/MX34



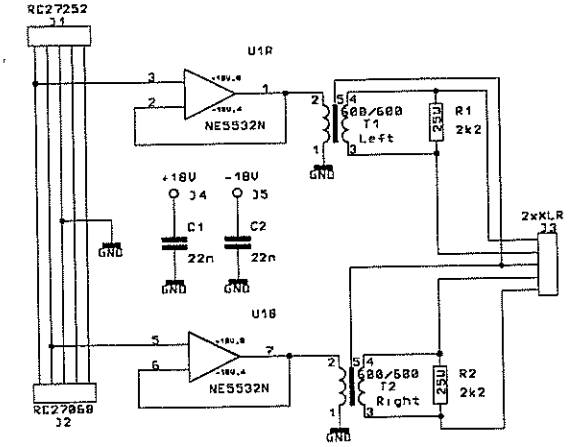
4.4.0. RC 27 154 / RC 27 254 SUPPLY UNIT MX180/MX34



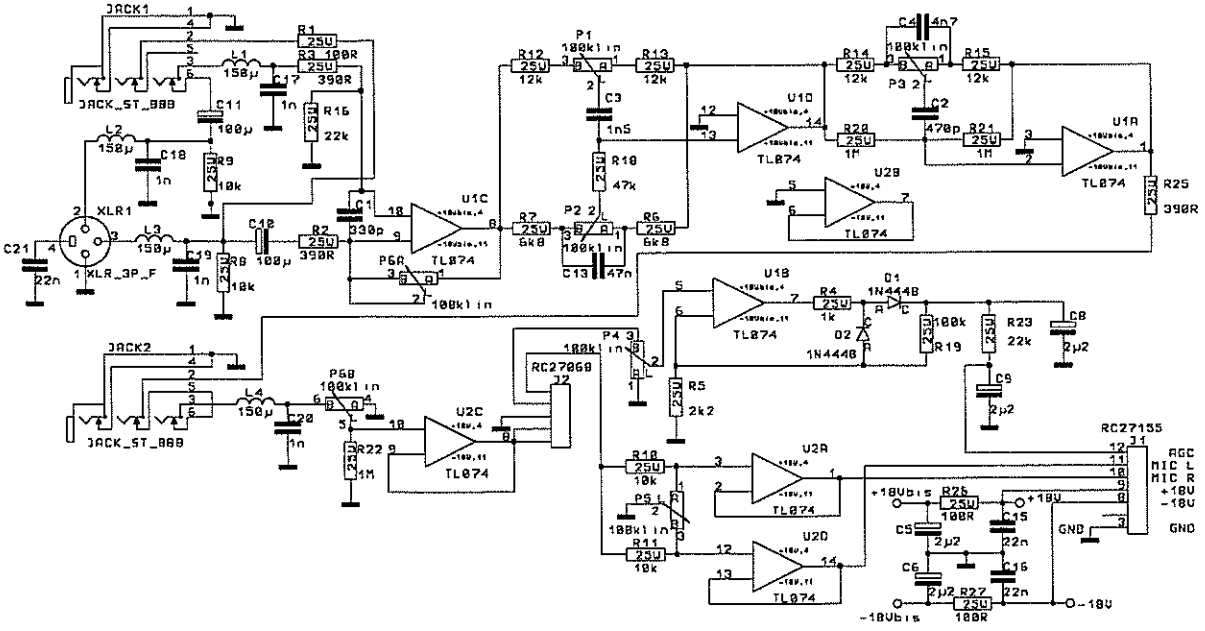
4.5.0. RC 27 155 BUSBAR UNIT MX180



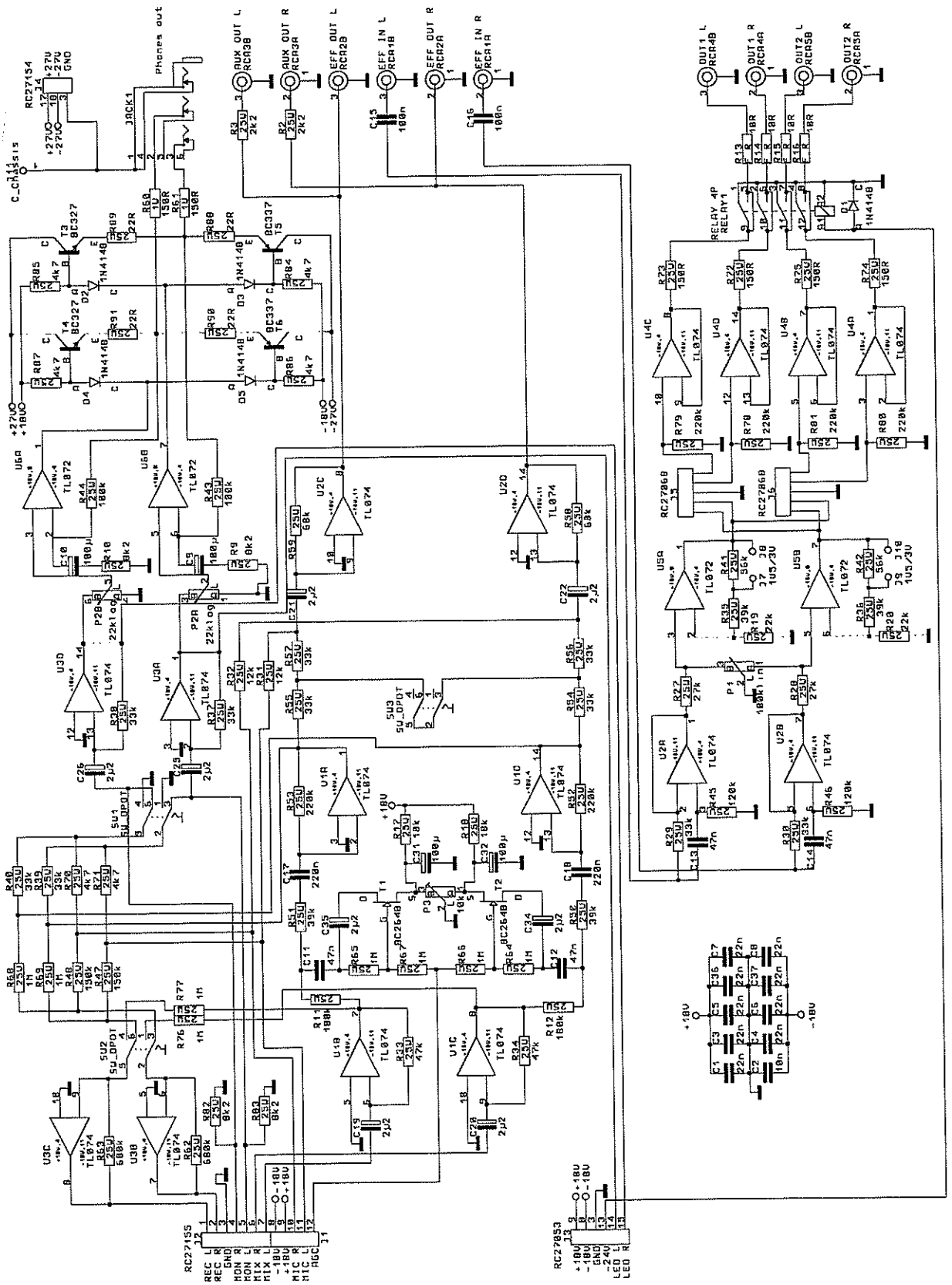
4.6.0. RC 27 267 SYMMETRICAL OUTPUT UNIT MX100/MX180/MX34



4.7.0. RC 27 251 DJ INPUT UNIT MX180/MX34



4.8.0. RC 27 252A OUTPUT UNIT MX180/MX34



5.0.0. PARTS LISTS

5.1.0. RC 27 053 LED DISPLAY MX180/MX34

Refdes	Device	Order code	Function
P1, P1	Trimmer horzontal 10k	RC 08 031	LED adjust
D39...D44	LED red 1,85x4,85mm	RC 17 102	Till serial nr. 207683
D5, D6, D37, D38	LED yellow 1,85x4,85mm	RC 17 103	Till serial nr. 207683
D7...D36	LED green 1,85x4,85mm	RC 17 104	Till serial nr. 207683
D1...D4	Diode 1N4448/1N4148	RC 17 105	
U1	IC TL074CN	RC 18 009	
U4, U5	IC LM3916N (log)	RC 18 018	
U2, U3	IC LM3915N (lin)	RC 18 019	
	IC socket DIL 14p	RC 20 005	
	IC socket DIL 18p	RC 20 007	
C3, C4	Capacitor polyester 100n	RC 22 107	
C5, C6	Capacitor electrolytic 2µ2/63V axial	RC 22 205	
C1, C2	Capacitor multilayer 22n	RC 22 303	
R1, R2	Resistor 1k0 1/3W	RC 23 010	
R7, R8	Resistor 4k7 1/3W	RC 23 016	
R9, R10	Resistor 6k8 1/3W	RC 23 018	
R3...R6	Resistor 22k 1/3W	RC 23 025	
R11...R16	Resistor 150k 1/3W	RC 23 111	
R17...R18	Resistor 1k5 1/3W	RC 23 115	
PCB1	Print LED MX180/MX34	RC 25 053	
	Wirejumper 5mm	RC 32 024	
	Wirejumper 15mm	RC 32 026	
J2	Connector edge 6p/90°	RC 34 005	
J1	Connector 5p/0°	RC 34 027	
D39...D44	LED red 5x2	36 501 0001	From serial nr. 207683
D5, D6, D37, D38	LED yellow 5x2	36 501 0002	From serial nr. 207683
D7...D36	LED green 5x2	36 501 0003	From serial nr. 207683
	LED holder 20 LED's	51 505 0001	From serial nr. 207683

5.2.0. RC 27 059 BUSBAR UNIT MX34

Refdes	Device	Order code	Function
PCB1	Print busbar MX34	RC 25 059	
	Wirejumper 10mm	RC 32 025	
J1, J3	Connector 7p/0°	RC 34 020	
J4...J11	Connector 9p/0°	RC 34 021	
J2	Connector 5p/0°	RC 34 022	

5.3.0. RC 27 150 INPUT UNIT MX180/MX34

Refdes	Device	Order code	Function
P1	Pot. rotative 1x100klin	RC 08 017	Pan microphone
P2, P3, P4	Pot. rotative 2x100klin	RC 08 019	Low/Mid/High equalizer
P5	Pot. rotative 2x220klog	RC 08 032	Input level
SW1	Switch Rotative 2x4 pos	RC 08 105	Input select
SW2	Switch Tumbler 2x2/90°	RC 08 116	PFL on/off
RCA1, RCA2, RCA4	RCA 2pol/90° Ni white/red	RC 10 017	2xLine input/Record output
RCA3	RCA 2pol/90° Au white/red	RC 10 025	Phono input
XLR1	XLR 3pol/90°	RC 10 036	Microphone input
U1, U2	IC TL072CP	RC 18 008	
U3	IC TL074CN	RC 18 009	
U4	IC NE5534N	RC 18 010	
	IC socket DIL 8p	RC 20 001	
	IC socket DIL 14p	RC 20 005	
L1...L8	Coil 150µH	RC 21 009	
C1, C2	Capacitor ceramic 470p	RC 22 005	

C3, C4	Capacitor ceramic 1n0	RC 22 006	
C5, C6	Capacitor ceramic 2n7	RC 22 009	
C18	Capacitor ceramic 330p	RC 22 013	
C15, C16	Capacitor ceramic 220p	RC 22 015	
C19, C20	Capacitor ceramic 4n7	RC 22 016	
C17	Capacitor ceramic 10p	RC 22 017	
C21, C22	Capacitor polyester 10n	RC 22 103	
C23, C24	Capacitor polyester 68n	RC 22 111	
C25...C30	Capacitor electrolytic 2µ2/63V axial	RC 22 205	
C31...C34	Capacitor electrolytic 100µ/10V axial	RC 22 209	
	Capacitor electrolytic 100µ/10V radial	RC 22 224	
C35...C42	Capacitor multilayer 1n0	RC 22 301	
C43, C7...C14	Capacitor multilayer 22n	RC 22 303	
R1, R2	Resistor 330R 1/3W	RC 23 006	
R3, R4	Resistor 1k0 1/3W	RC 23 010	
R5...R8	Resistor 2k2 1/3W	RC 23 012	
R9...R12	Resistor 6k8 1/3W	RC 23 018	
R13...R16	Resistor 10k 1/3W	RC 23 021	
R17..R24	Resistor 12k 1/3W	RC 23 022	
R25, R26	Resistor 27k 1/3W	RC 23 026	
R27, R28, R33, R34	Resistor 33k 1/3W	RC 23 027	
R29...R32, R35, R36	Resistor 47k 1/3W	RC 23 029	
R37, R38	Resistor 100k 1/3W	RC 23 103	
R39...R42	Resistor 220k 1/3W	RC 23 105	
R45, R46	Resistor 330k 1/3W	RC 23 106	
R47...R50	Resistor 1M0 1/3W	RC 23 113	
R43, R44	Resistor 120k 1/3W	RC 23 121	
PCB1	Print input MX180 MKII/MX240	RC 25 150	
	Wirejumper 5mm	RC 32 024	
	Wirejumper 10mm	RC 32 025	
J1	Connector 9p/90°	RC 34 019	
J2	Connector lock 5p/0°	RC 34 029	

5.4.0. RC 27 154 / RC 27 254 SUPPLY UNIT MX180/MX34

Refdes	Device	Order code	Function
SW1	Switch Push + nut	RC 08 109	Power on/off
F2, F3	Fuse T630mA 5x20mm	RC 12 009	
	Heatsink 25x30	RC 15 012	
T1	Transistor BC556A	RC 17 008	
D1	Diode 1N4448/1N4148	RC 17 105	
G1, G2	Rectifier Bridge 40V	RC 17 120	
U3	PVR +24V	RC 18 013	
U1	PVR +18V	RC 18 014	
U2	NVR -18V	RC 18 015	
C1	Capacitor polyester 22n 250V MKT X2	RC 22 101	
C2, C3, C5	Capacitor polyester 220n	RC 22 108	
C6	Capacitor electrolytic 47µ/25V axial	RC 22 214	
C8	Capacitor electrolytic 47µ/63V axial	RC 22 217	
C9, C10	Capacitor electrolytic 2200µ/40V axial	RC 22 219	
C4	Capacitor electrolytic 4µ7/63V radial long leads	RC 22 222	
C7	Capacitor electrolytic 220µ/63V axial	RC 22 226	
C11	Capacitor multilayer 22n	RC 22 303	
R1	Resistor 18k 1/3W	RC 23 024	
R2	Resistor Fuse 10R 1/3W	RC 23 601	
PCB1	Print supply MX180 MKII/MX240	RC 25 254	
	Fuseholder print	RC 32 011	
	Distance disk	RC 32 017	
	Wirejumper 5mm	RC 32 024	
	Wirejumper 25mm	RC 32 030	

J1	Connector 5p/90°	RC 34 024	
J4	Connector lock 3p/0°	RC 34 041	
	Thread forming screw M3x8 POZ	RC 35 002	
	Nut M3 brass	RC 35 005	
	Blocsur JZ 3	RC 35 015	

5.5.0. RC 27 155 BUSBAR UNIT MX180

Refdes	Device	Order code	Function
U2	IC TL072CP	RC 18 008	
U1	IC TL074CN	RC 18 009	
	IC socket DIL 8p	RC 20 001	
	IC socket DIL 14p	RC 20 005	
C1...C4	Capacitor multilayer 22n	RC 22 303	
R9...R12	Resistor 10k 1/3W	RC 23 021	
R5...R8	Resistor 39k 1/3W	RC 23 028	
R13...R16	Resistor 47k 1/3W	RC 23 029	
R1...R4	Resistor 56k 1/3W	RC 23 101	
PCB1	Print busbar MX180	RC 25 155	
	Wirejumper 5mm	RC 32 024	
	Wirejumper 15mm	RC 32 026	
J1, J3	Connector 7p/0°	RC 34 020	
J4...J7	Connector 9p/0°	RC 34 021	
J2	Connector 5p/0°	RC 34 022	
J8	Connector lock 5p/0°	RC 34 029	

5.6.0. RC 27 167 SYMMETRICAL OUTPUT UNIT MX100/MX180/MX34

Refdes	Device	Order code	Function
	Support symmetrical out	RC 01 042	
U1	IC NE5532N	RC 18 011	
	IC socket DIL 8p	RC 20 001	
T1, T2	Line transfo 2x600ohm	RC 21 022	
C1, C2	Capacitor multilayer 22n	RC 22 303	
R1, R2	Resistor 2k2 1/3W	RC 23 012	
PCB1	Print sym output MX100/180/180 MKII/240/34	RC 25 267	
J1, J2, J3	Connector lock 5p/0°	RC 34 029	
	Rivet Al 2,9x6	RC 35 123	

5.7.0. RC 27 251 DJ INPUT UNIT MX180/MX34

Refdes	Device	Order code	Function
P1...P5	Pot. rotative 1x100klin	RC 08 017	Low/Mid/High/Pan/Talk over
P6	Pot. rotative 2x100klin	RC 08 019	Input level
JACK1, JACK2	JACK STEREO 90°/12,5mm	RC 10 027	DJ Mic input/Insert
XLR1	XLR 3pol/90°	RC 10 036	DJ Mic input
D1, D2	Diode 1N4448/1N4148	RC 17 105	
U1, U2	IC TL074CN	RC 18 009	
	IC socket DIL 14p	RC 20 005	
L1...L4	Coil 150µH	RC 21 009	
C2	Capacitor ceramic 470p	RC 22 005	
C3	Capacitor ceramic 1n5	RC 22 007	
C1	Capacitor ceramic 330p	RC 22 013	
C4	Capacitor ceramic 4n7	RC 22 016	
C13	Capacitor polyester 47n	RC 22 106	
C8, C9	Capacitor electrolytic 2µ2/63V axial	RC 22 205	
C10, C11	Capacitor electrolytic 100µ/10V axial	RC 22 209	
C5, C6	Capacitor electrolytic 2µ2/50V radial	RC 22 221	
C17...C20	Capacitor multilayer 1n0	RC 22 301	
C15, C16, C21	Capacitor multilayer 22n	RC 22 303	

R1, R26, R27	Resistor 100R 1/3W	RC 23 003	
R2, R3, R25	Resistor 390R 1/3W	RC 23 007	
R4	Resistor 1k0 1/3W	RC 23 010	
R5	Resistor 2k2 1/3W	RC 23 012	
R6, R7	Resistor 6k8 1/3W	RC 23 018	
R8...R11	Resistor 10k 1/3W	RC 23 021	
R12...R15	Resistor 12k 1/3W	RC 23 022	
R16, R23	Resistor 22k 1/3W	RC 23 025	
R18	Resistor 47k 1/3W	RC 23 029	
R19	Resistor 100k 1/3W	RC 23 103	
R20, R21, R22	Resistor 1M0 1/3W	RC 23 113	
PCB1	Print DJ mic MX180 MKII	RC 25 251	
	Wirejumper 5mm	RC 32 024	
	Wirejumper 10mm	RC 32 025	
J1	Connector 7p/90°	RC 34 006	
J2	Connector lock 5p/0°	RC 34 029	

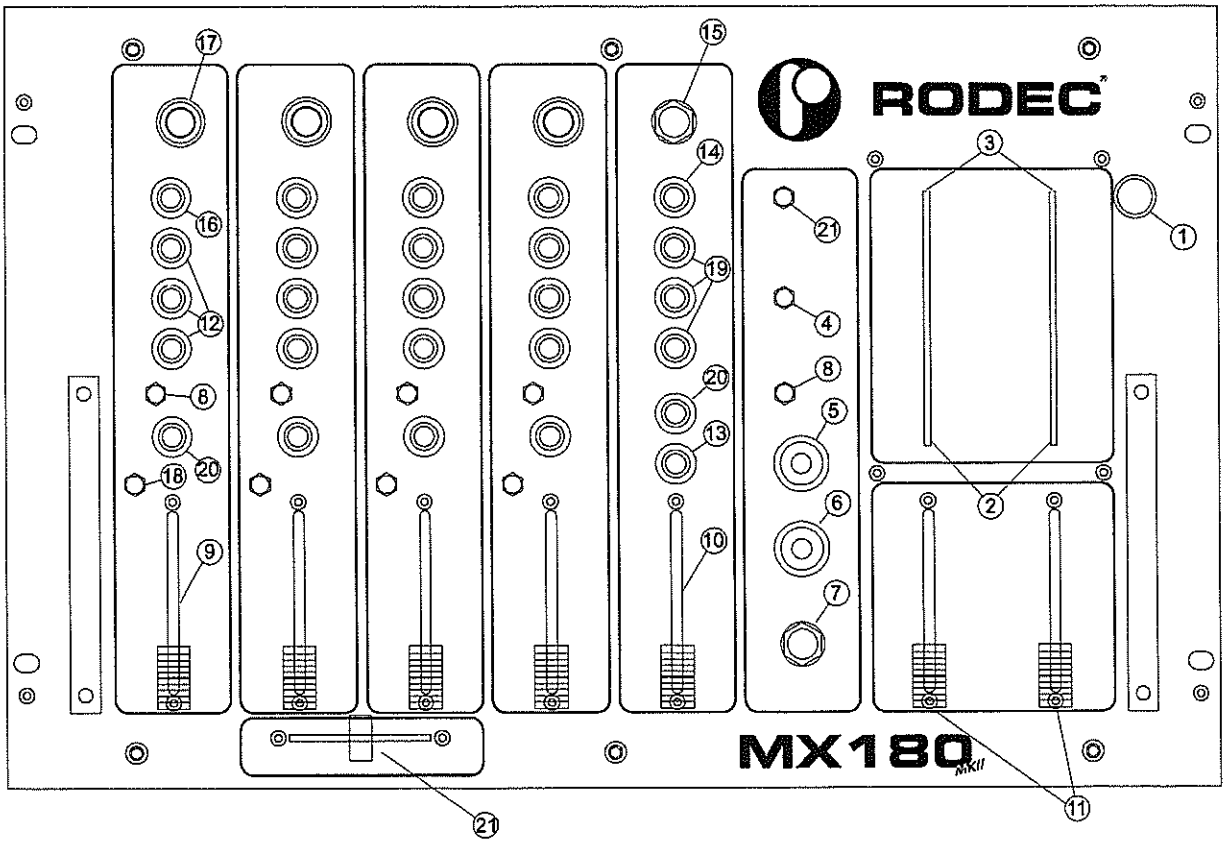
5.8.0. RC 27 252A OUTPUT UNIT MX180/MX34

Refdes	Device	Order code	Function
P1	Pot. rotative 1x100klin	RC 08 017	Balance
P2	Pot. rotative 2x22klog	RC 08 020	Phones volume
P3	Trimmer vertical 10k	RC 08 035	Compressor adjust
SW1, SW2, SW3	Switch Tumbler 2x2/90°	RC 08 116	Record select/Mode select/Sum
RCA1...RCA5	RCA 2pol/90° Ni white/red	RC 10 017	Master + Aux outputs/Eq in/Eq out
JACK1	JACK STEREO 90°/12,5mm	RC 10 027	
RELAY1	Relais 4pol Zn 24V	RC 12 028	
T5, T6	Transistor BC337	RC 17 003	
T3, T4	Transistor BC327	RC 17 004	
T1, T2	FET BC264A	RC 17 012	
D1...D5	Diode 1N4448/1N4148	RC 17 105	
U5, U6	IC TL072CP	RC 18 008	
U1, U4	IC TL074CN	RC 18 009	
	IC socket DIL 8p	RC 20 001	
	IC socket DIL 14p	RC 20 005	
C11...C14	Capacitor polyester 47n	RC 22 106	
C15, C16	Capacitor polyester 100n	RC 22 107	
C17, C18	Capacitor polyester 220n	RC 22 108	
C19...22, 25, 26, 34, 35	Capacitor electrolytic 2µ2/63V axial	RC 22 205	
C9, C10, C31, C32	Capacitor electrolytic 100µ/10V axial	RC 22 209	
C1...8, 36, 37, Chassis	Capacitor multilayer 22n	RC 22 303	
R2, R3	Resistor 2k2 1/3W	RC 23 012	
R70, R71, R84...R87	Resistor 4k7 1/3W	RC 23 016	
R9, R10, R82, R83	Resistor 8k2 1/3W	RC 23 019	
R31, R32	Resistor 12k 1/3W	RC 23 022	
R17, R18	Resistor 18k 1/3W	RC 23 024	
R19, R20	Resistor 22k 1/3W	RC 23 025	
R27, R28	Resistor 27k 1/3W	RC 23 026	
R29, 30, 37...40, 54...57	Resistor 33k 1/3W	RC 23 027	
R50, R51	Resistor 39k 1/3W	RC 23 028	
R34, R35, R36	Resistor 47k 1/3W	RC 23 029	
R41, R42	Resistor 56k 1/3W	RC 23 101	
R58, R59	Resistor 68k 1/3W	RC 23 102	
R43, R44	Resistor 100k 1/3W	RC 23 103	
R11, R12	Resistor 180k 1/3W	RC 23 104	
R52, R53, R78...R81	Resistor 220k 1/3W	RC 23 105	
R47, R48	Resistor 150k 1/3W	RC 23 111	
R62, R63	Resistor 680k 1/3W	RC 23 112	
R64, R66...69, R76,	Resistor 1M0 1/3W	RC 23 113	

R77			
R45, R46	Resistor 120k 1/3W	RC 23 121	
R72...R75	Resistor 150R 1/3W	RC 23 122	
R88...R91	Resistor 22R 1/3W	RC 23 125	
R60, R61	Resistor 150R 1W	RC 23 519	
R13...R16	Resistor Fuse 10R 1/3W	RC 23 601	
PCB1	Print output MX180/MX180 MKII/MX240/MX34	RC 25 252	
	Wirepart 2x120mm	RC 29 117	
	Wirepart 2x100mm	RC 29 118	
	Solderpin	RC 32 005	
	Wirejumper 5mm	RC 32 024	
	Wirejumper 10mm	RC 32 025	
	Wirejumper 15mm	RC 32 026	
J2	Connector 7p/90°	RC 34 006	
J1	Connector edge 5p/90°	RC 34 025	
J3	Connector long 6p/39mm	RC 34 028	
J5, J6	Connector lock 5p/0°	RC 34 029	
J4	Connector lock 3p/0°	RC 34 041	

6.0.0. Parts discription

6.0.1. Front view

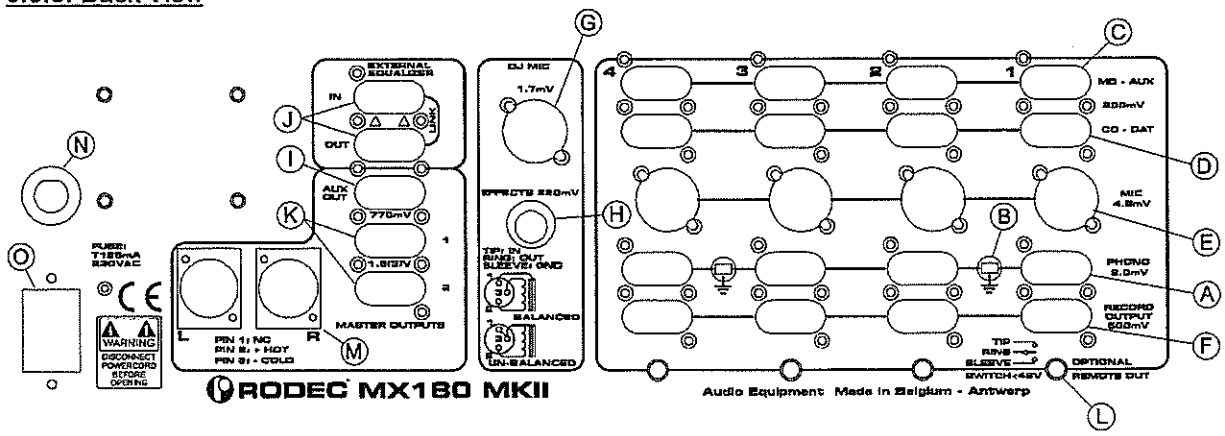


6.0.2. Front part order numbers

Number	Device	Order code	Function
1	Switch Push red + nut	RC 08 109	Powerknob red
1	Protection nut power switch	RC 35 124	
2 + 3	LED red 1.85x4.85mm	RC 17 102	LED red
2 + 3	LED yellow 1.85x4.85mm	RC 17 103	LED yellow
2 + 3	LED green 1.85x4.85mm	RC 17 104	LED green
4	Switch Tumbler 2x2/90°	RC 08 116	Mode select switch

5	Pot. Rotative 1x100klin	RC 08 017	Balance Potmeter
5	Knob 22mm black	RC 05 035	Knob black
5	Cap 22mm black	RC 05 045	Cap black
6	Pot. Rotative 2x22klog	RC 08 020	Phones volume Potmeter
6	Knob 22mm black	RC 05 035	Knob black
6	Cap 22mm black	RC 05 045	Cap black
7	JACK STEREO 90°/12.5mm	RC 10 027	Headphones output
8	Switch Tumbler 2x2/90°	RC 08 116	Sum + PFL Switch
9 + 10 + 11 (MX18)	Original: Fader Noble + cable Now: Alps channel fader replacement set	RC 29 022 RC 29 032	Master + channel fader
9 + 10 + 11 (MX18)	Slide knob grey	RC 05 102	Fader knob grey
9 + 10 +11 (MX180)	Alps fader unit	RC 27 068	Master + channel fader
9 + 10 +11 (MX180)	Slideknob grey-black	RC 05 107	Fader knob grey
9 + 10 +11 (MX180 MKII)	Alps fader unit	RC 27 068	Master + channel fader
9 + 10 +11 (MX180 MKII)	Slideknob grey-black	RC 05 107	Fader knob grey
12	Pot. rotative 2x100klin	RC 08 019	Equalizer potmeter
12	Knob 10mm black	RC 05 033	Knob black
12 (MX18 + MX180)	Cap 10 mm blue	RC 05 038	Cap blue High equalizer
12 (MX18 + MX180)	Cap 10mm green	RC 05 039	Cap green Mid equalizer
12 (MX18 + MX180)	Cap 10mm red	RC 05 040	Cap red Low equalizer
12 (MX180 MKII)	Cap 10mm grey	RC 05 041	Cap grey High + Mid + Low eq.
13	Pot. rotative 1x100klin	RC 08 017	Talk over potmeter
13	Knob 10mm black	RC 08 033	Knob black
13	Cap 10mm black	RC 05 042	Cap black
14	Pot. rotative 2x100klin	RC 08 019	Input level potmeter
14	Knob 10mm black	RC 08 033	Knob black
14 (MX18 + MX180)	Cap 10mm grey	RC 05 041	Cap grey
14 (MX180 MKII)	Cap 10mm red	RC 05 040	Cap red
15	JACK STEREO 90°/12.5mm	RC 10 027	DJ Mic input
16	Pot. rotative 2x220klog	RC 08 032	Input level potmeter
16	Knob 10mm black	RC 08 033	Knob black
16 (MX18 + MX180)	Cap 10mm grey	RC 05 041	Cap grey
16 (MX180 MKII)	Cap 10mm red	RC 05 040	Cap red
17	Switch Rotative 2x4 pos.	RC 08 116	Input select switch
17	Knob 16mm black	RC 05 034	Knob black
17 (MX18 + MX180)	Cap 16mm grey	RC 05 043	Cap grey
17 (MX180 MKII)	Cap 16mm black	RC 05 044	Cap black
18 (MX18 + MX180)	Switch Tumbler N-0-M	RC 08 106	Remote start switch
18 (MX180 MKII)	Hole plug 6.5mm black	RC 32 035	Hole plug
19	Pot. rotative 1x100klin	RC 08 017	DJ Mic equalizer potmeter
19	Knob 10mm black	RC 05 033	Knob black
19 (MX18 + MX180)	Cap 10 mm blue	RC 05 038	Cap blue High equalizer
19 (MX18 + MX180)	Cap 10mm green	RC 05 039	Cap green Mid equalizer
19 (MX18 + MX180)	Cap 10mm red	RC 05 040	Cap red Low equalizer
19 (MX180 MKII)	Cap 10mm grey	RC 05 041	Cap grey High + Mid + Low eq.
20	Pot. rotative 1x100klin	RC 08 017	Panorama potmeter
20	Knob 10mm black	RC 05 033	Knob black
20	Cap 10mm black	RC 05 042	Cap black
21 (MX18 + MX34)	Not available, only as option	RC 29 030	P&G Crossfader unit
21 (MX180 + MX180 MKII)	Alps crossfader unit	RC 27 169	Crossfader
21 (MX180 + MX180 MKII)	Slideknob CF grey	RC 05 108	Crossfader knob grey
MX18	Frontplate MX18	RC 05 021	Frontplate
MX180	Frontplate MX180	RC 05 221	Frontplate
MX180 MKII	Frontplate MX180 MKII	RC 05 321	Frontplate
MX34	Frontplate MX34	RC 05 046	Frontplate

6.0.3. Back view



6.0.4. Back part order numbers

Number	Device	Order code	Function
A	RCA 2pol/90° Au white/red	RC 10 025	RCA phono input
B	Earth terminal	RC 10 014	Earth connector
C + D	RCA 2pol/90° Ni white/red	RC 10 017	RCA line inputs
E (MX18 + MX180)	XLR 3pol	RC 10 023	XLR mic input
E (MX180 MKII)	XLR 3pol 90°	RC 10 036	XLR mic input
F	RCA 2pol/90° Ni white/red	RC 10 017	RCA record output
G (MX18 + MX180)	XLR 3pol	RC 10 023	XLR DJ mic input
G (MX180 MKII)	XLR 3pol 90°	RC 10 036	XLR DJ mic input
H	JACK STEREO 90°/12,5mm	RC 10 027	JACK DJ mic insert
I + J + K	RCA 2pol/90° Ni white/red	RC 10 017	RCA output + ext. equalizer
L (MX18 + MX180)	DIN 3pol/5pol	RC 10 026	DIN Remote start
L (MX180 MKII)	Hole plug 6.5mm black	RC 32 035	Hole plug
M (MX18)	Not avialable	Not available	Not available
M (MX180)	Hole plug 22mm black	RC 32 036	Hole plug
M (MX180 MKII)	XLR 3pol	RC 10 024	XLR Symm. output
N	Fuse holder	RC 12 018	Fuse holder
N	Fuse T125mA 5x20mm	RC 12 008	Fuse T125mA
O (MX18 + MX180 till 01/01/1996)	Mains bus plug-in	RC 12 016	Power inlet
O (MX180 from 01/01/1996 + MX180 MKII)	Mains filter 1A	RC 12 017	Power inlet
MX18/180	Connectionpanel MX180	RC 01 032	
MX180 MKII	Connectionpanel MX180 MKII	RC 01 132	
MX180 MKII	Bottombox MX180 MKII/MX240	RC 01 035	
MX34	Connectionpanel MX34	RC 01 038	
MX34	Bottombox MX34	RC 01 039	