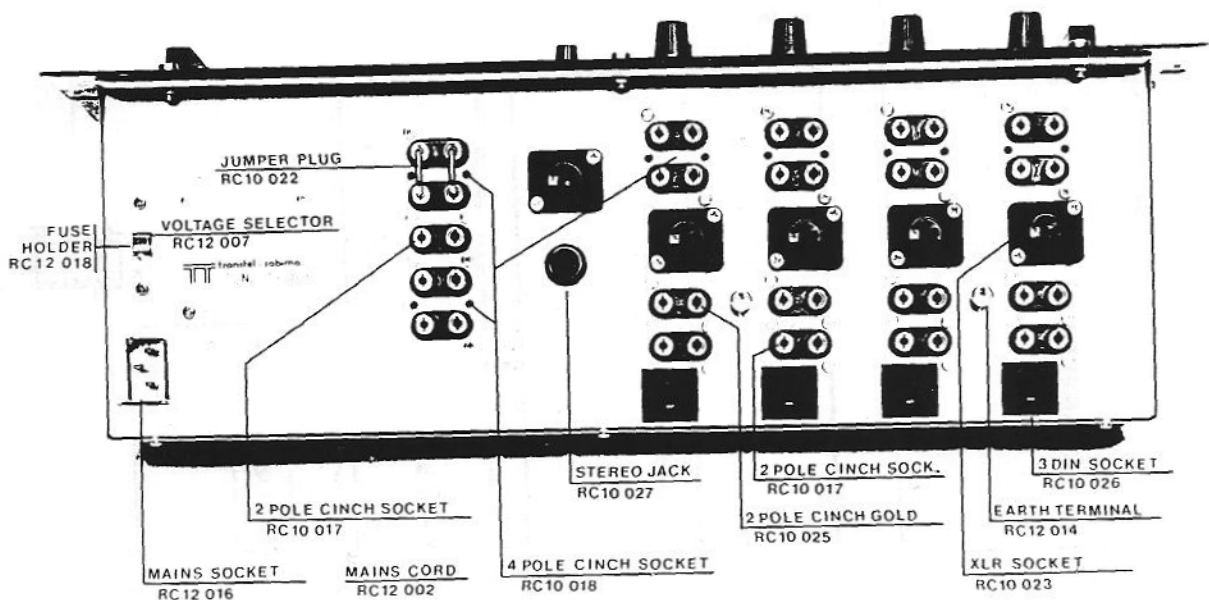
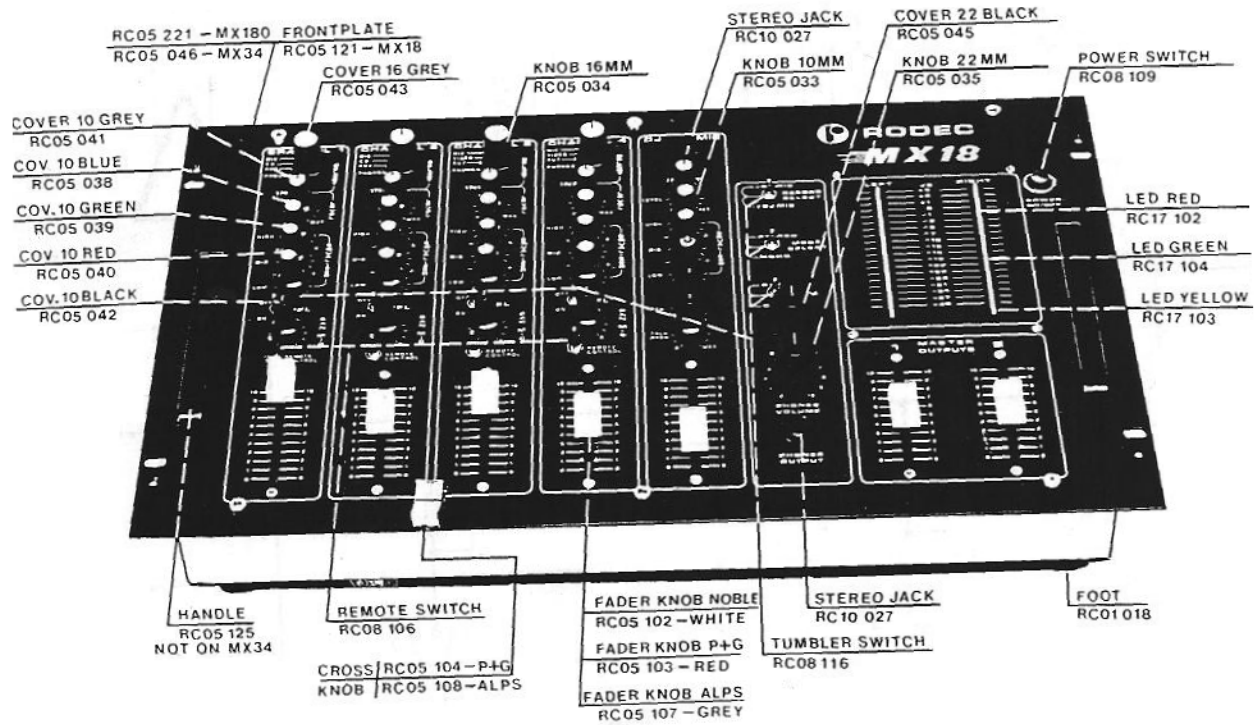
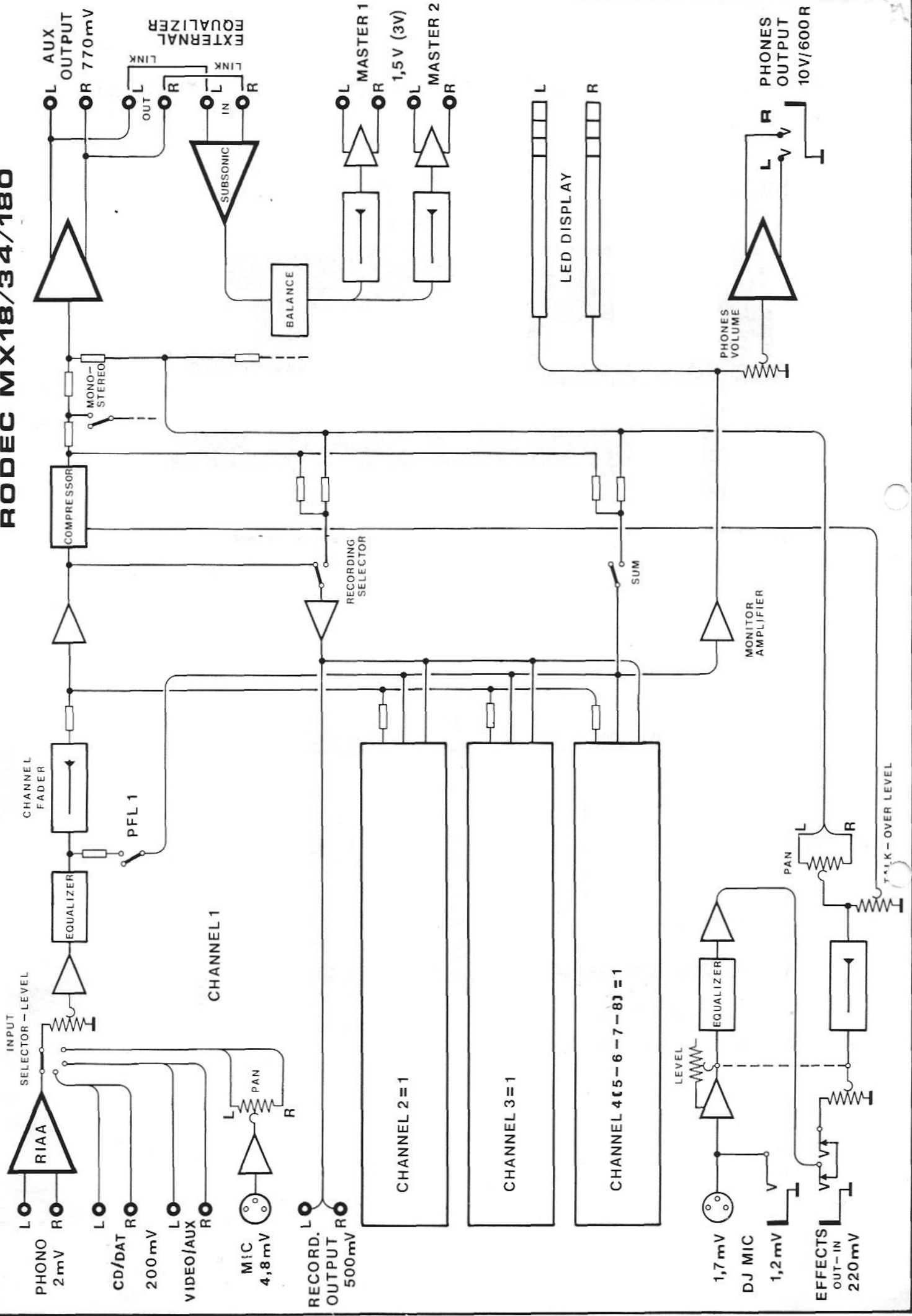
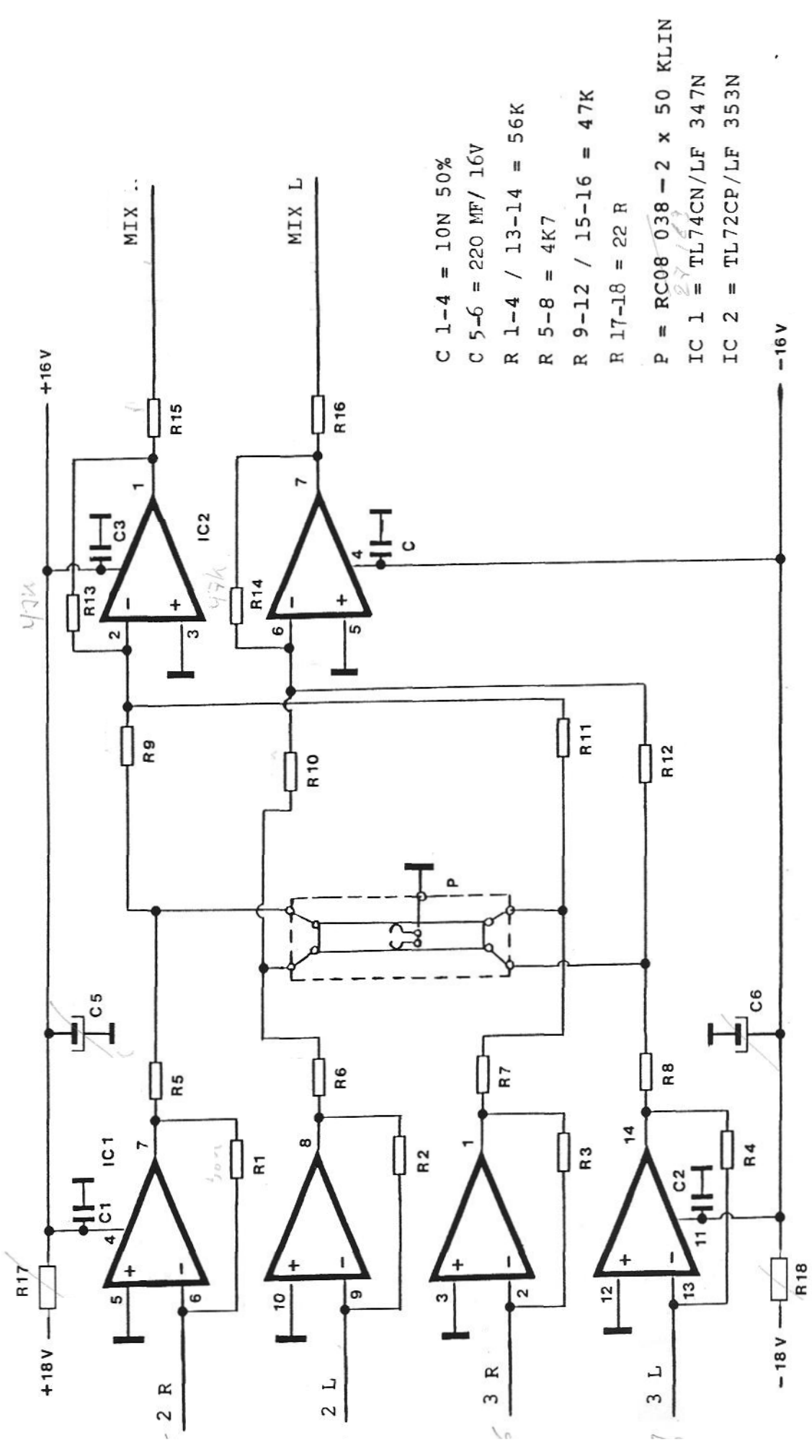


# RODEC MX 18/180/34 service manual



# RODEC MX18/34/180





C 1-4 = 10N 50%

C 5-6 = 220 MF/ 16V

R 1-4 / 13-14 = 56K

R 5-8 = 4K7

R 9-12 / 15-16 = 47K

R 17-18 = 22 R

P = RC08 038 - 2 x 50 KLIN

IC 1 = TL74CN/LF 347N

IC 2 = TL72CP/LF 353N

-16V

Component values for models after Serial Number: 196.322

INPUT CHANNEL CIRCUIT BOARD RC25 050:

Metal film resistors 1/4 watt

R 1,2	330R
R 3,4	1K
R 5,6,7,8	2K2
R 9,10,11,12	6K8
R 13,14,15,16	10K
R 17,18,19,20,21,22,23,24	12K
R 25,26	27K
R 27,28,33,34	33K
R 29,30,31,32,35,36	47K
R 39,40,41,42	220K
R 37,38	100K
R 43,44	120K
R 45,46	330K
R 47,48,49,50	1M

Capacitors & semiconductors

C 1,2	470 PF ceramic capacitor
C 3,4	1 NF ceramic capacitor
C 5,6	2N7 ceramic capacitor
C 7,8,9,10,11,12,13,14	10N ceramic capacitor
C 15,16	220 PF ceramic capacitor
C 17	10 PF ceramic capacitor
C 18	330 PF ceramic capacitor
C 19,20	4N7 ceramic capacitor
C 21,22	10N polyester cap.
C 23,24	68N polyester cap.
C 25,26,27,28,29,30	2M2/63V electrolytic cap
C 31,32,33,34	100M/10V electrolytic cap
IC 1,2	TL072CP/LF353N low noise dual opamp
IC 3	TL074CN/LF347N low noise quad opam
IC 4	NE5534N low noise single opamp.

<u>LOCATION REF.</u>	<u>FUNCTION</u>	<u>DESCRIPTION</u>	<u>STOCKNUMBER</u>
P 1	Mic panoramic	Rotative potentiometer 100K lin	RC08 017
P 5	Input level	Rotative potentiometer 2x220K log	RC08 032
P 2	Treble	Rotative potentiometer 2x100K lin	RC08 019
P 3	Bass	Rotative potentiometer 2x100K lin	RC08 019
P 4	Mid	Rotative potentiometer 2x100K lin	RC08 019
S 1	Input selector	Rotative switch 2x4 positions	RC08 105
S 2	PFL	Tumbler switch	RC08 116
	Recording output	2 pole Cinch socket	RC10 017
	Phono input	2 pole Cinch gold	RC10 025
	AUX,CD,VIDEO inp.	4 pole Cinch socket	RC10 018
	XLR adaptor	3 pole XLR to PCB	RC10 028

DJ MIKE INPUT CHANNEL CIRCUIT RC25 151:

R 1	100R	C 1	330 PF ceramic capacitor
R 2,3,25	390R	C 2	470 PF ceramic capacitor
R 4	1K	C 3	1N5 ceramic capacitor
R 5	2K2	C 4	4N7 ceramic capacitor
R 6,7	6K8	C 5,6,15,16	10N ceramic capacitor
R 8,9,10,11	10K	C 8,9	2M2/63V electrolytic cap
R 12,13,14,15	12K	C 10,11	100M/10V electrolytic cap
R 16, 23	22K	C 13	47N polyester capacit.
R 18	47K		
R 19	100K	D 1,2	1N4448 silicium diode
R 20,21,22	1M	IC 1,2	TL074CN/LF347N low noise quad opam
P 1	Treble	Rotative potentiometer 100K lin	RC08 017
P 2	Bass	Rotative potentiometer 100K lin	RC08 017
P 3	Mid	Rotative potentiometer 100K lin	RC08 017
P 4	Talk-over	Rotative potentiometer 100K lin	RC08 017
P 5	Panoramic	Rotative potentiometer 100K lin	RC08 017
P 6	Input level	Rotative potentiometer 2x100K lin	RC08 019
Mic input & Effects in/out	Stereo Jack		RC10 027
	XLR adaptor	3 pole XLR to PCB	RC10 028

MODIFICATION FROM Ser.N° 198.095 on:

C5-6 = 2M2/63V  
straps above D1 are replaced by 2 resistors 100 R.



OUTPUT CIRCUIT BOARD RC25 152 (from serial Nr 198 095 on)

R 2-3	2K2	C 1-8,36-37	10N ceramic cap.
R 9-10,82-83	8K2	C 11-14	47N polyester cap.
R 11-12	180K	C 15-16	100N polyester cap.
R 13-16	10R	C 17-18	220N polyester cap.
R 17-18	18K	C 19-22,25-26,34-35	2M2/63V electrolytic c
R 19-20	22K	C 9-10,31-32	100M/10V electrolytic c
R 27-28	27K	Q 1-2	BC264A N-channel FET
R 29-30	33K	Q 3-4	BC337 NPN transistor
R 31-32	12K	Q 5-6	BC327 PNP transistor
R 33-36	47K	D 1-5	1N4148 silicium diode
R 37-40,54-57	33K	IC 1-4	TL074/LF347 quad opamp
R 40,52-53,78-81	220K	IC 5-6	TL072/LF353 dual opamp
R 41-42	56K		
R 43-44	100K	P 1 100K lin	RC08 017 Balance pot.
R 45-46	120K	P 2 2x22K log	RC08 020 Phones volume
R 47-48	150K	P 3 10K preset lin	RC08 035 compressor bal
R 50-51	39K		
R 58-59	68K	S 1-3	RC08 116 Tumbler switch
R 60-61	47R	AUX OUTPUT socket	RC10 017 2 pole cinch
R 62-63	680K	MASTER & EQU.OUTPUT. soc	RC10 018 4 pole cinch
R 64-69,76-77	1M	PHONES socket	RC10 027 stereo jack
R 72-75	150R	Muting Relais	RC12 028 4 pole 24V DC
R 70-71,84-87	4K7		
R 88-91	22R		

LED DISPLAY CIRCUIT BOARD RC25 053:

R 1,2	1K	IC 1	TL074CN/LF347N low noise quad op.
R 3,4,5,6	22K	IC 2,3	LM3915N led driver IC lower part
R 7,8	4K7	IC 4,5	LM3916N led driver IC upper part
R 9,10	6K8	D 1,2,3,4	1N4448 silicium diode
R 11,12,13,14,15,16	150K	Signal LED	RC17 102 red 2x5mm
R 17,18	1K5	Signal & pilot LED	RC17 103 yellow 2x5mm
C 1,2	10N ceramic capacitor	Signal LED	RC17 104 green 2x5mm
C 3,4	100N polyester capacit.	P1	RC08 031 adjust upper set 10K lin
C 5,6	2M2/63V electrolytic cap.	P2	RC08 031 adjust lower set 10K lin

POWER SUPPLY CIRCUIT BOARD RC25 054:

C 4	2M2/63V Electrolytic Cap.		
R 1	18K metal film resistor 1/4 watt		
C 1,2,3,5	220N polyester capacitor		
C 6	47M/25V electrolytic capacitor		
C 7,8	47M/63V electrolytic capacitor		
C 9,10	2200M/40V electrolytic capacitor		
Q 1	BC559 transistor PNP		
D 1	1N4448 silicium diode		
B 1,2	B40/C800 diode bridge rectifier	RC17 120	
PVR 1	7818 positive voltage reg.+18V	RC18 014	
NVR 1	7918 negative voltage reg.-18V	RC18 015	
PVR 2	7824 positive voltage reg.+24V	RC18 013	
S	power switch	RC08 109	
F	630mA fuses slow blow	RC12 009	
	cooling fins for T0220	RC15 011	
T	Mains transformer 22-0-22V	RC21 005	

Channel fader unit Alps	RC27 068
Fader to board flatcable	RC29 031
Chann. fader Penny+Giles	RC29 023





# RODEC

# MX 180



This mixer fulfils the need for more elaborate disco or studio work. Each of the 4 multi-channels handle a phono-, 2 high level-, and a microphone input. Equalisation treble/medium/bass on each channel makes source correction possible and is very usefull when recording.

Mechanical and electronic components used in the MX 180 are of the same quality level as in the other RODEC mixers. With his rugged construction of standard rack dimensions, the mixer is suitable to be mounted in a desk or in a flight-case. When used free standing, the frontpanel makes a 25° inclination.

The stabilised power supply of 36V allows:

- Greater overload margin of the inputs: 35dB on phono 1 to 4, and 34dB on microphones 1 to 4.
- Greater overload margin of the gain stages: signal processing on a higher level results in a better signal to noise ratio.
- High level equaliser performance: +/-13dB on 100Hz/1kHz/10kHz.
- Boosting the output level to 3V by cutting away 2 straps on a pcb.
- High range 43dB double segment LED display.

The input circuits of the DJ microphone channel is designed to take all possible input levels up to 2V. This allows connection of a tuner for remote miking on VHF. Electronic talk-over is gradually adjustable with a level control on the frontpanel. This channel also features a treble/medium/bass equaliser to adapt all kind of microphones. An in-out jack socket is provided to insert external auxilliary equipment.

The use of high-speed/low-noise integrated circuits result in a clear, musical sound. This feature guarantees faithful sound quality when high-tech sources like CD or D.A.T. are reproduced.

Since the design of its predecessor (MX 18), which was already appreciated by many professionals, some additional improvements have been incorporated:

- The crossfader and channel faders are Alps types with a very smooth sliding force. They are mounted directly against the frontplate which prevents accidental infiltration of fluids into the mixer.
- Crossfader action is defeated in the mid-position but can be activated any time between channels 2 & 3 (any selected input). Channel faders always remain active.
- Headphone output has been upgraded to 4V/50 Ohm, giving the best performance with the most encountered models.
- Symmetric, earthfree master outputs on XLR sockets are available as an option (RC27 067). This electronic set including shielded line-transformers can be factory mounted when ordering or retrofitted.

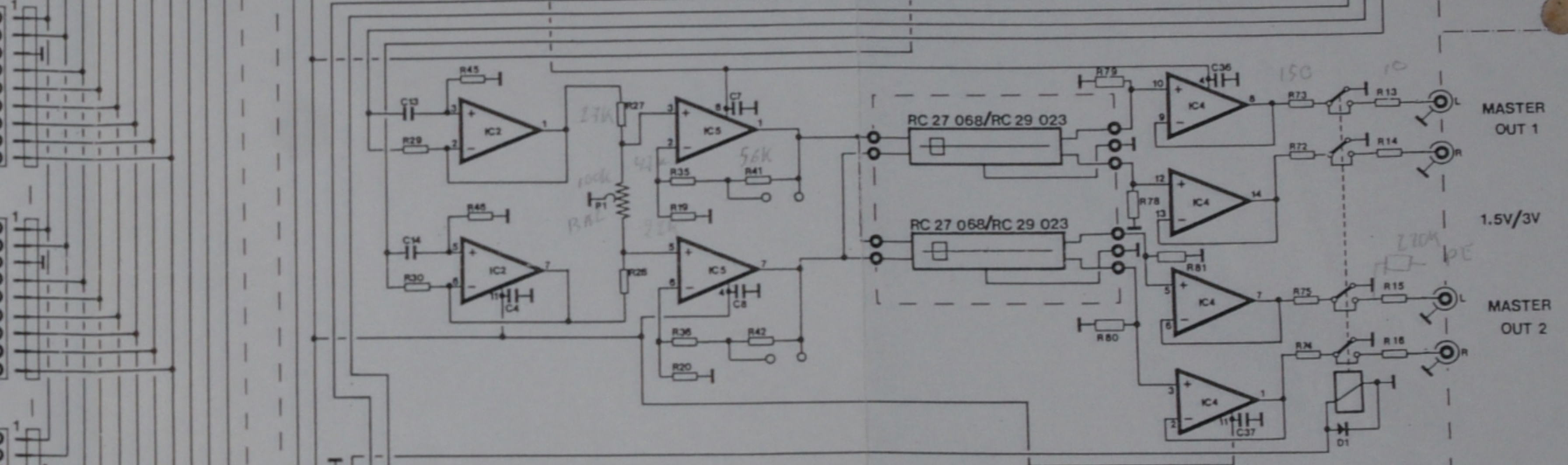
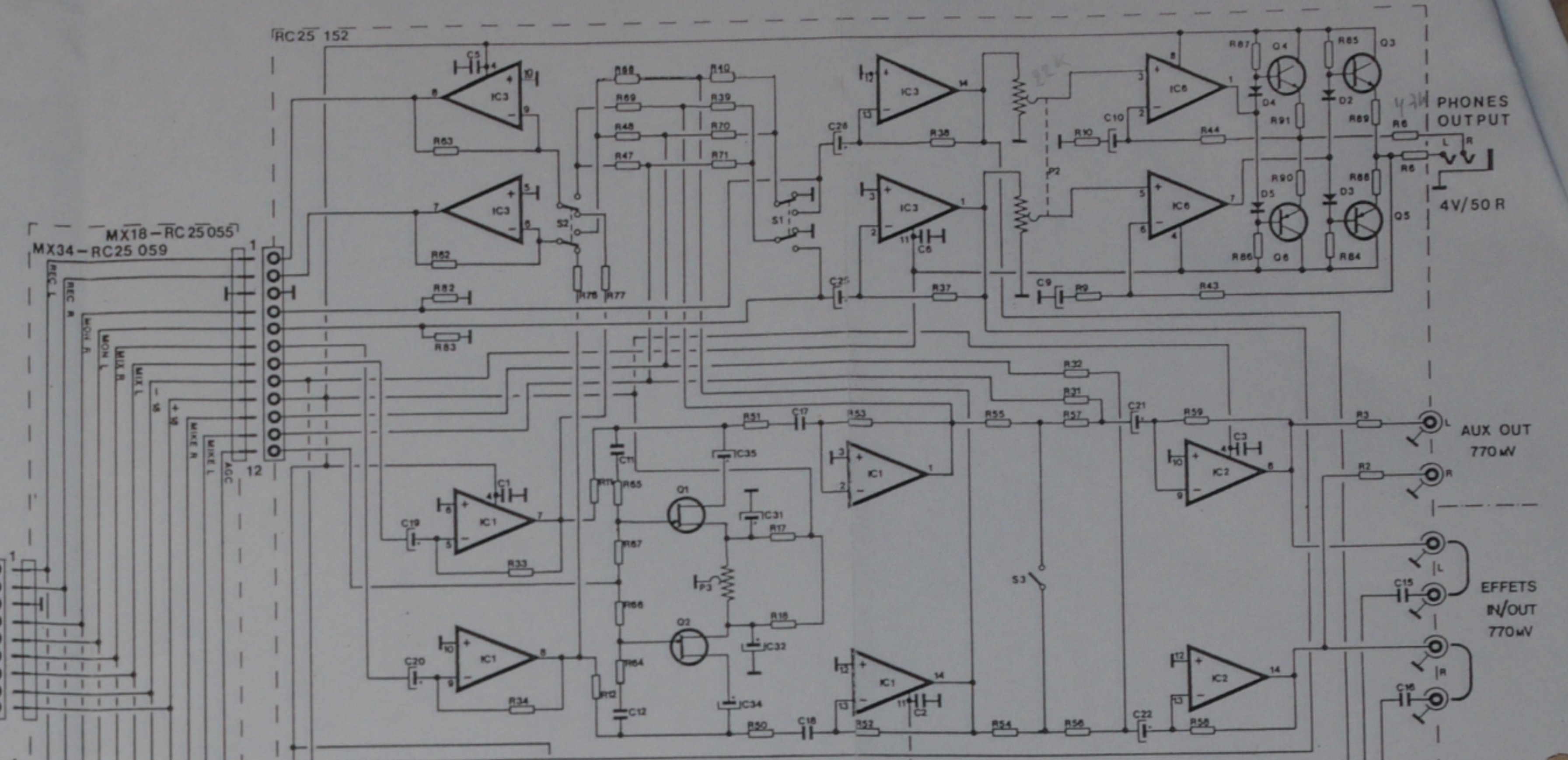
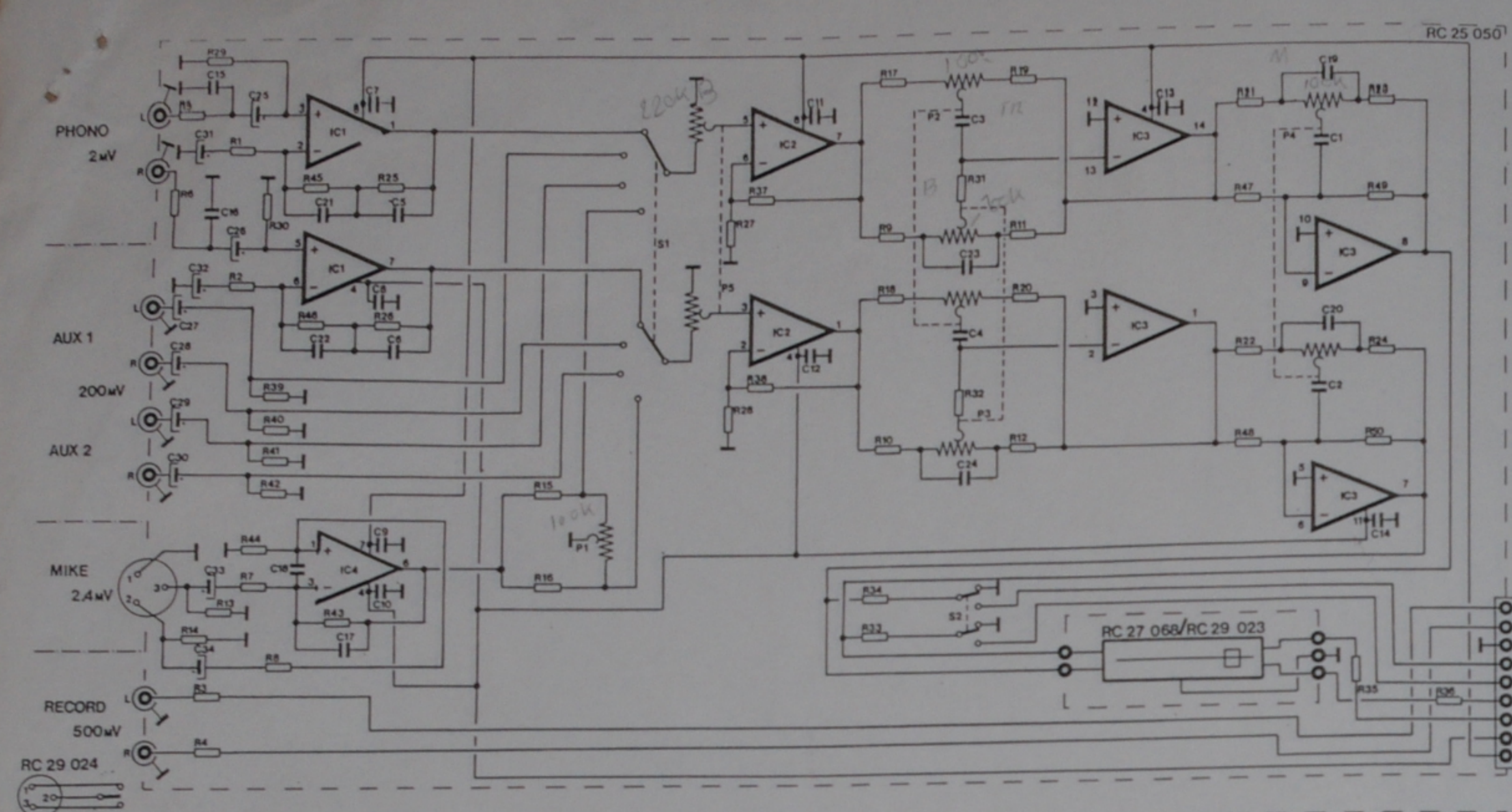
All these new features and the experiences with the former model makes this product a sure investment in quality and reliability.

**PENNY & GILES CHANNEL FADERS FOR PRO-USE AVAILABLE OPTIONALLY**

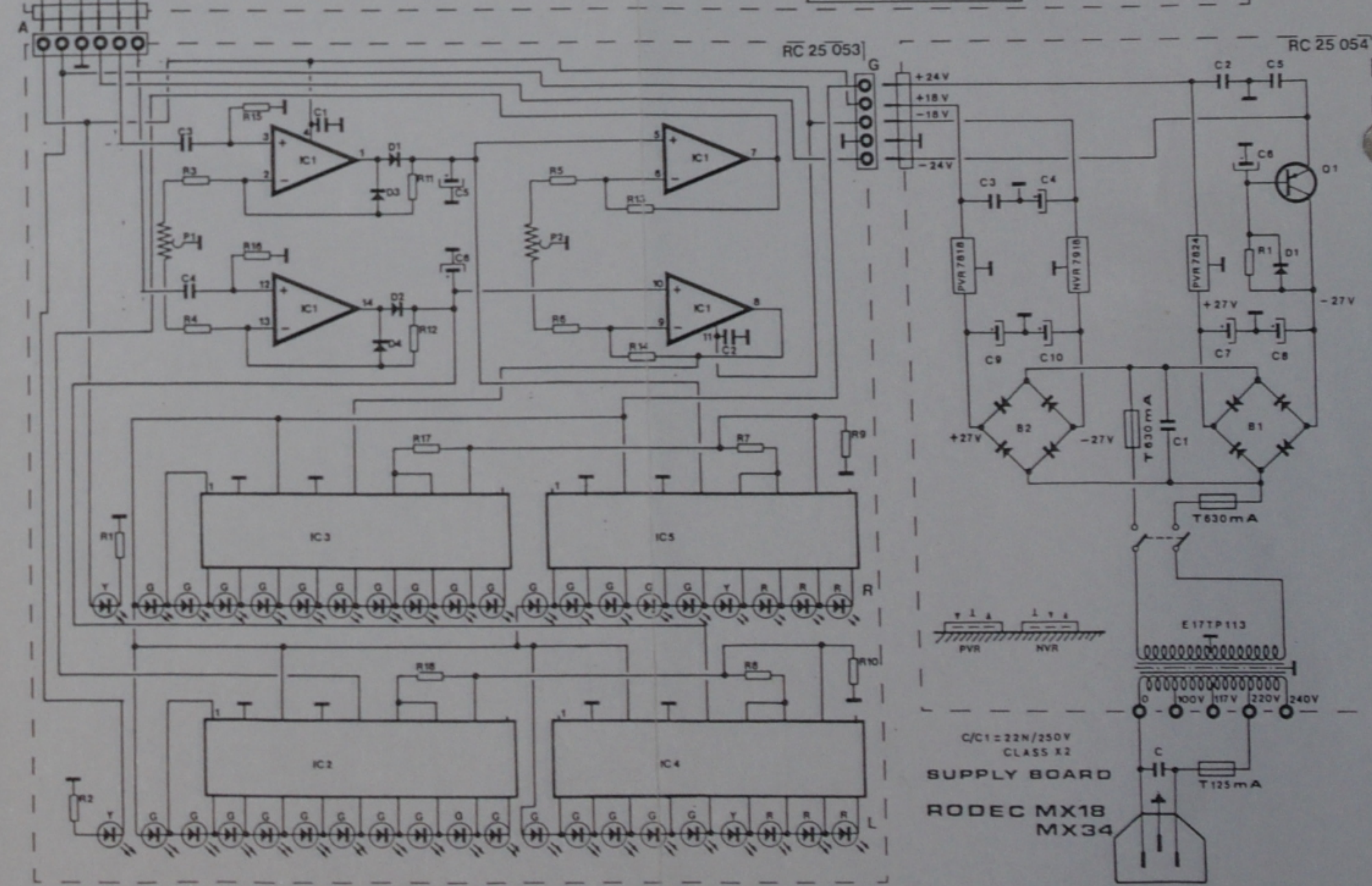
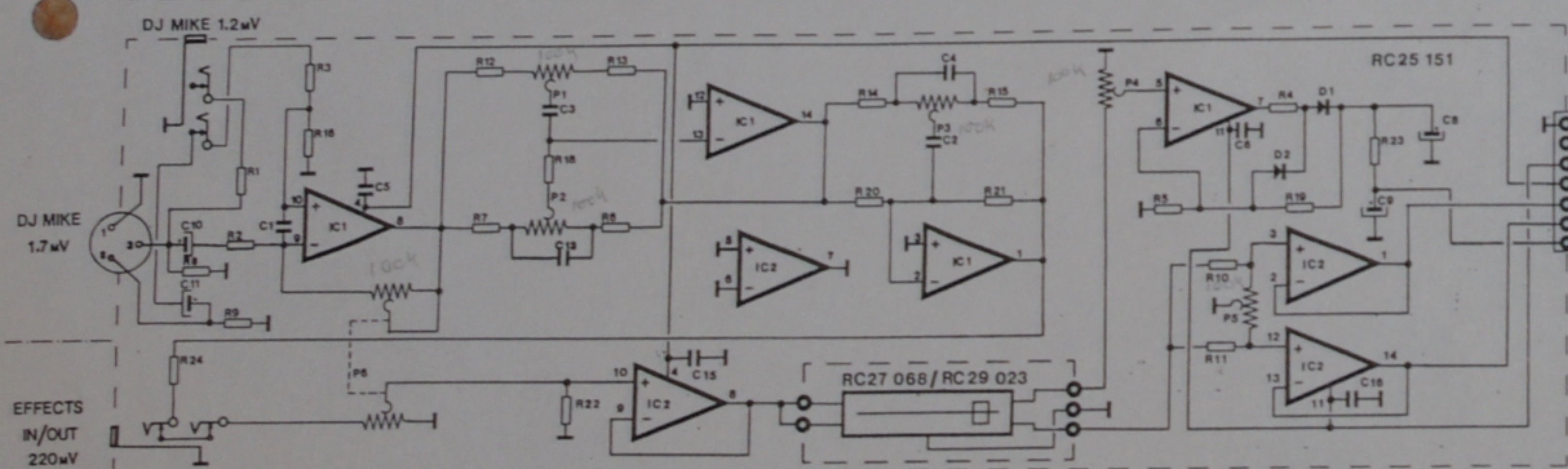








**MX34 8 multi-input channels**



C/C1 = 22N/250V CLASS X2  
SUPPLY BOARD  
RODEC MX18  
MX34