

PHILIPS

Met dank aan John Koster

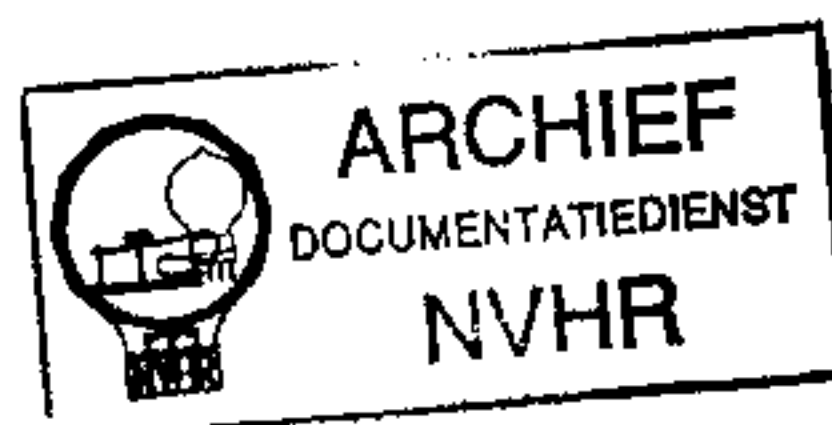
SERVICE DOCUMENTATION for RECTIFIER



EL 3904

EL 3904

Ned. Ver. v. Historie v/d Radio



GENERAL

The version EL 3904/00 is complete; the version EL 3904/01 is supplied without protective cover, plugs and bottom plate.

The rectifier supplies a 24 V direct voltage for the magnetic brakes and relays of the tape deck EL 3500/05 and the relays of the amplifiers EL 3900, as well as a 6.3 V alternating voltage for a maximum number of 5 pilot lamps 8008 X (6 V - 0.15 A).

DIMENSIONS

Width : 125 mm
Height : 170 mm
Depth : 282 mm

WEIGHT

9.7 kg

FIGURES

Fig. 1 Circuit diagram
Fig. 2 Selenium rectifier Gr1
Fig. 3 Supply transformer

Fig. 4 Top view
Fig. 5 Bottom view

ELECTRICAL DATA

Mains voltage	220 V (by switching S1 and S1' in parallel also suitable for 110 V, see fig.4).
Mains frequency	50 - 100 c/s
Power consumption if loaded by EL 3500 and EL 3901 and EL 3902 :	max. 85 W

CONNECTIONS

The backwall of the rectifier contains from left to right:

- 6 pole plug socket marked L.T. for taking up 24 V direct voltage and 6.3 V alternating voltage. For connection of the sockets see fig. 1.
- Flush pin plug socket for connection to the mains.

DESCRIPTION OF THE DIAGRAM

On delivery the apparatus is suitable for 220 V (S1 and S1' in series). By switching S1 and S1' in parallel the apparatus can be rendered suitable for 110 V mains voltage. To this end the connection between the terminals 2 and 3 is broken (see fig.3) and the terminals 1-2 and 3-4 are interconnected. The rectifier may be loaded with 2 amps.

In loaded condition the voltage of point 1 of L.T. should amount to 23 - 25 V negative with respect to the chassis. In unloaded condition this value is 36 - 40 V.

LIST OF MECHANICAL PARTS

Item	Description	Code number
1	Safety-fuseholder	B1 506 68.0
2	Mounting bracket	E2 544 41.0
3	Lead-in grommet	25 655 46.0
4	Pin plug socket, bipolar	M7 603 27.0
5	Plug, 6 pole	E2 556 28.0
6	Plug socket, 6-pole	E2 555 57.0
7	Lead-in grommet	25 655 57.0
8	Lead-in grommet	25 655 46.0
9	Pilot-lampholder	B1 505 80.0
	Female plug, bipolar	08 282 35.0

LIST OF ELECTRICAL PARTS

Index	Value	Name-list	Type	Code number
T1		Supply transformer		C1 202 86
L1		Choke	80 mH	C1 202 85
L2		Choke	80 mH	C1 202 85
VL1		Fuse 2.5 A		08 141 90.0
La1		Pilot lamp		8008 N
Gr1		Selenium rectifier		C1 202 87.0
C1	250+250 μ F	Condensor	Electrolytic 50V	A9 999 13/D250+250
C2	250+250 μ F	Condensor	Electrolytic 50V	A9 999 13/D250+250
C3	250+250 μ F	Condensor	Electrolytic 50V	A9 999 13/D250+250
R1	150 Ω 10%	Resistor	Wirewound 5.5W	48 494 10/150E
R2	120 Ω 10%	Resistor	Wirewound 5.5W	48 494 05/120E

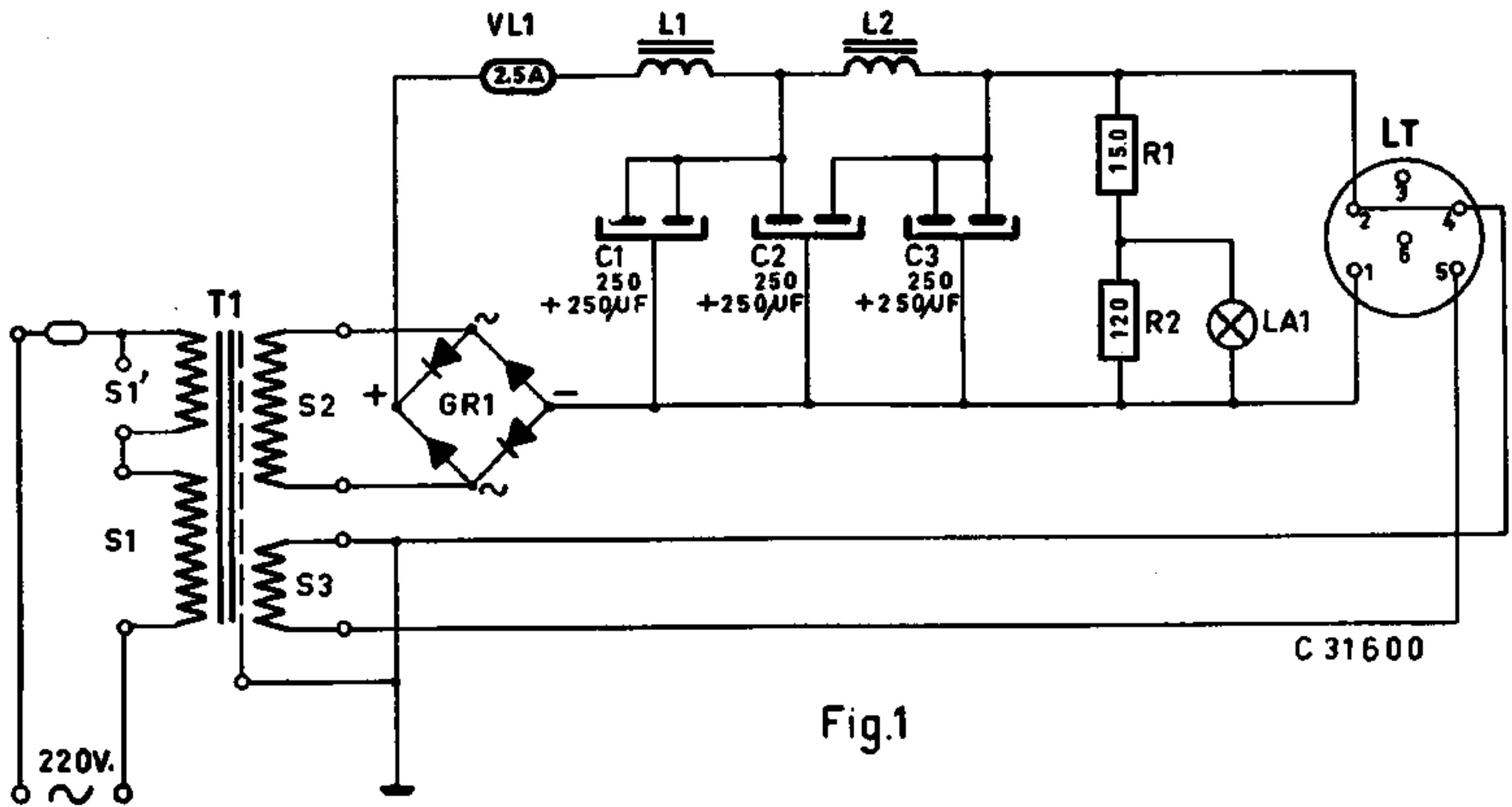


Fig.1

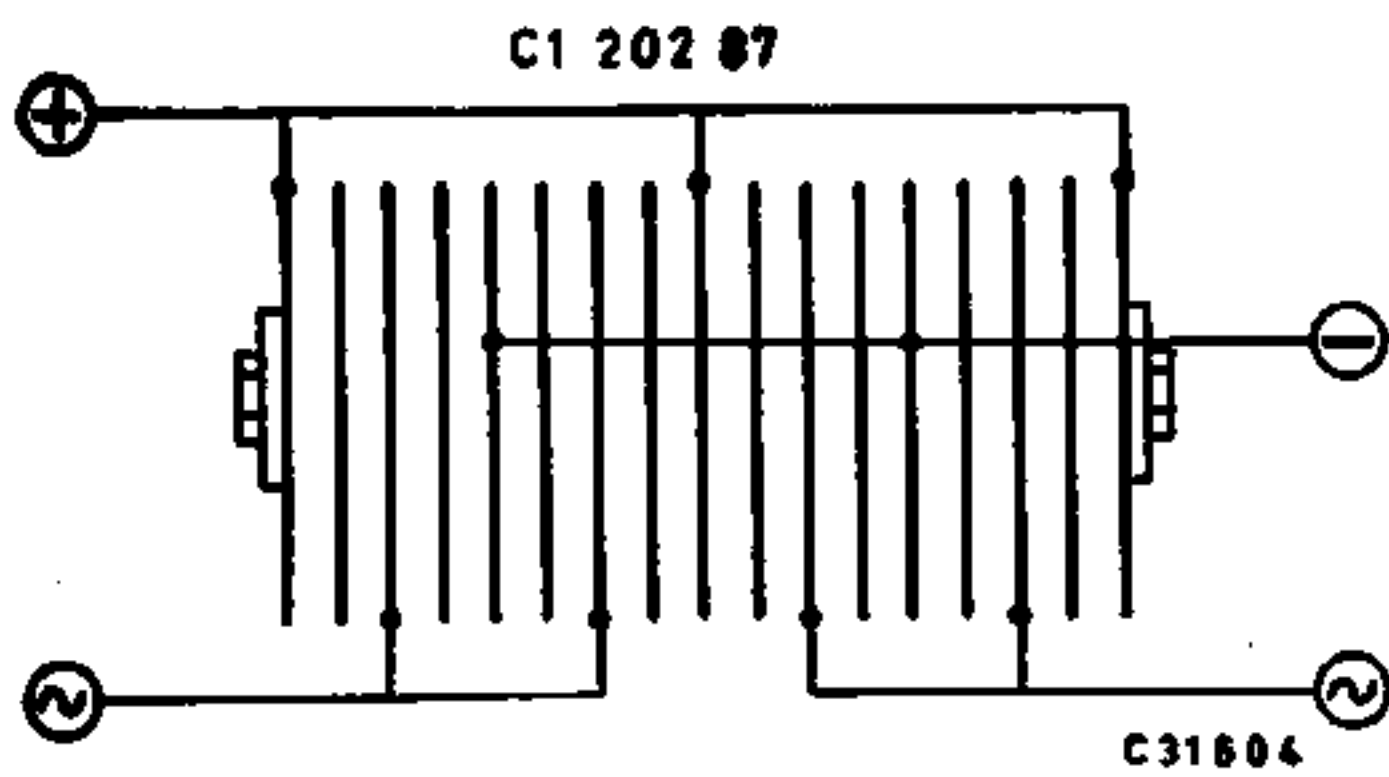
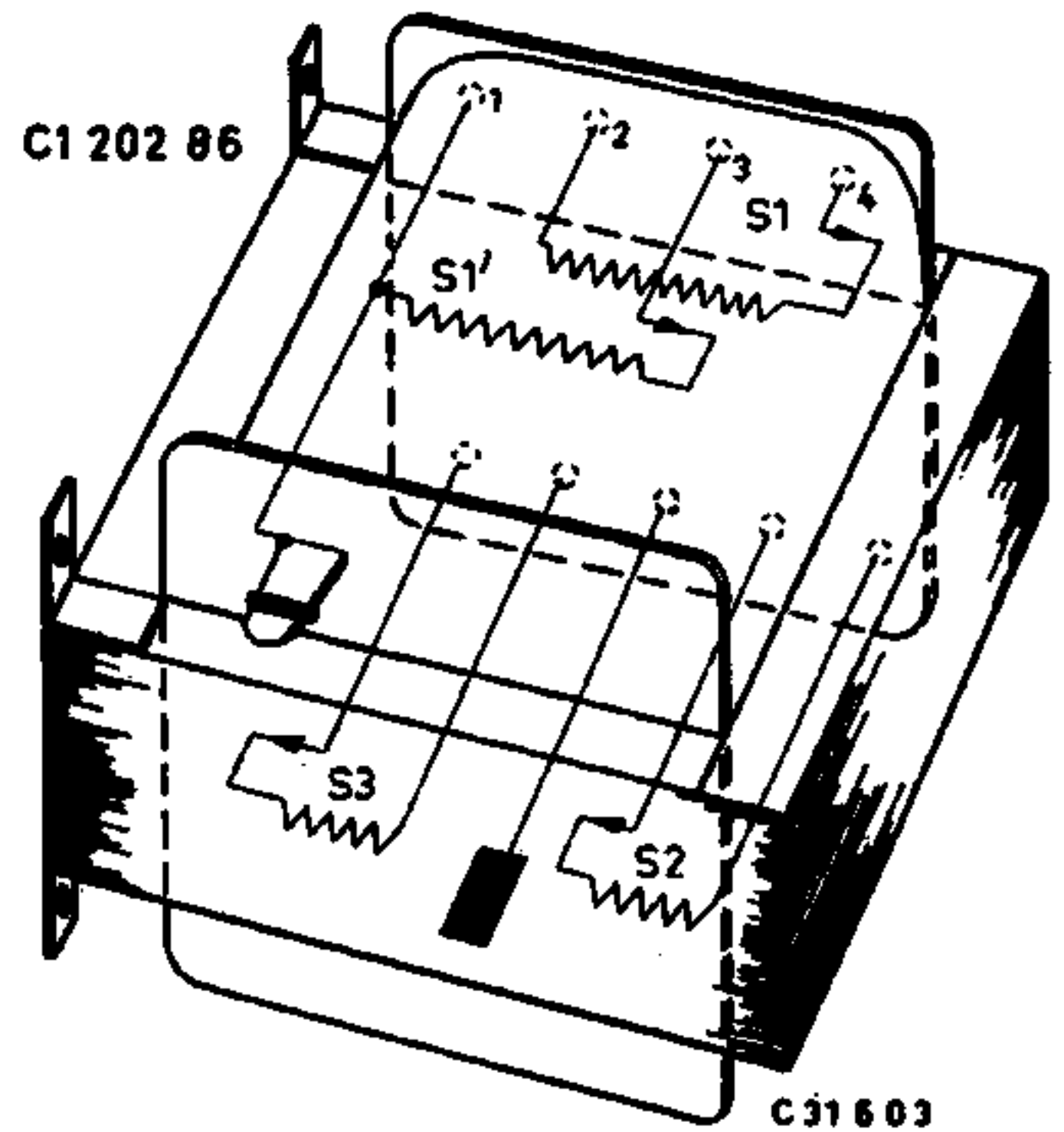
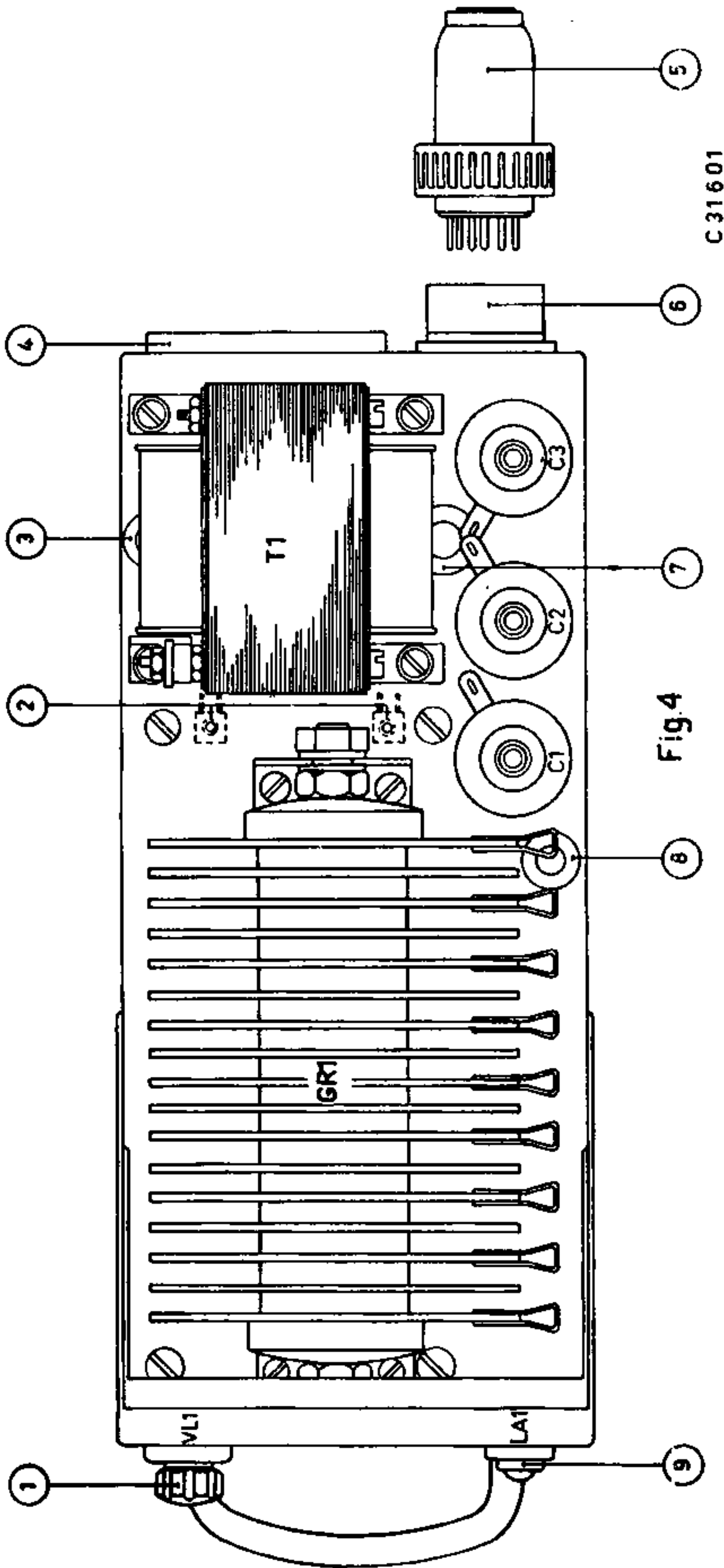


Fig.2

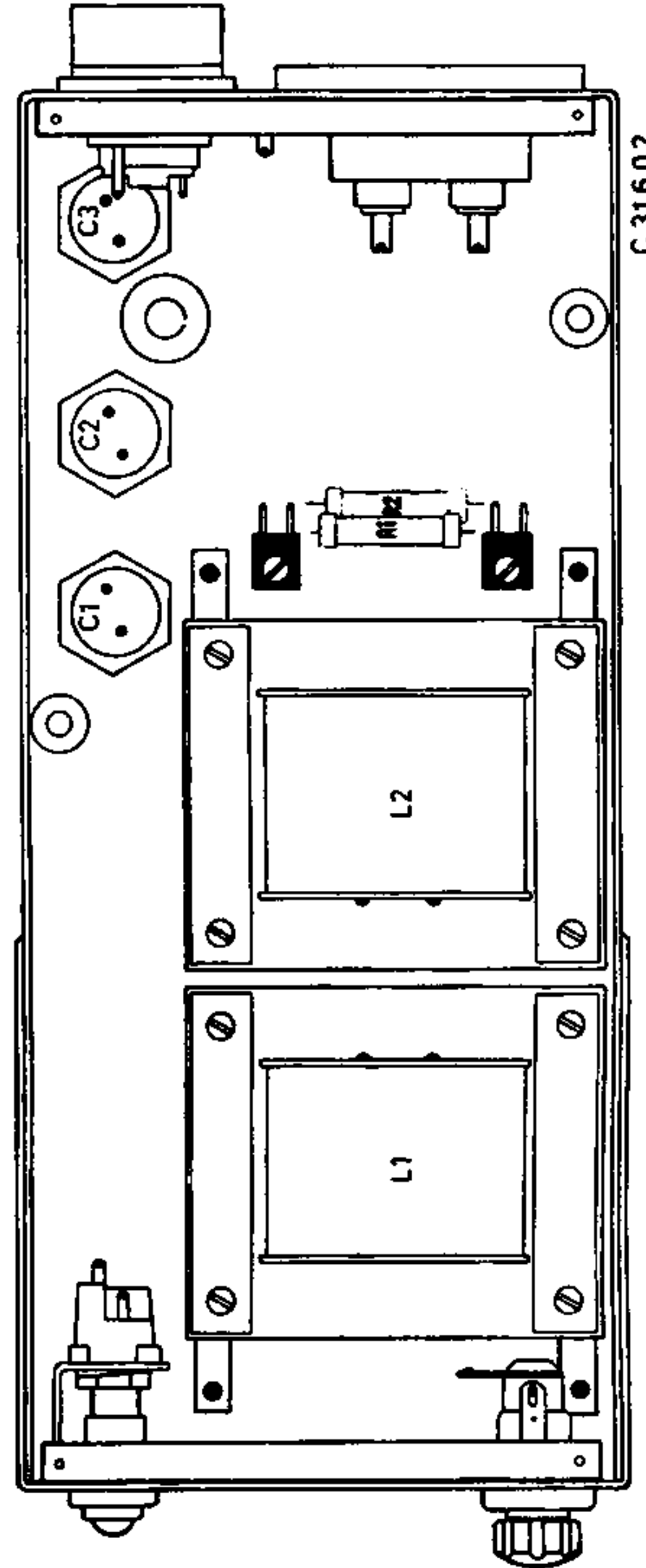


S1	S1'	S2	S3	W
370	370	134	21	

Fig.3



C 31601



C 31602

Fig. 5