THORENS

Service
TD125MkII

1. Electronically adjustment

1.1 Voltage adjustment of phase 1:

Connect an AC-meter to the soldering points "ge" and "rt" of the printed circuit-board. Adjust voltage at

45	RPM	to	6	V	by	means	of	potentiometer	A 1 45
33 1/3	"	"	5	V	"	"	"	"	A 1 33
16 2/3	"	"	3.2	V	"	"	"	"	A 1 16

1.2 Voltage adjustment of phase 2:

Connect the AC-meter to the soldering points "ge" and "bl" of the printed circuit-board. Adjust voltage at

45	RPM	to	6	V	by	means	of	potentiometer	A 2 45
33 1/3	"	"	5	V	"	"	"	"	A 2 33
16 2/3	"	"	3.2	V	"	"	"	"	A 2 16

If possible, check sinosoidal shape of both output voltages phase 1) and 2) with an oscilloscope.

1.3 Speed adjustment:

Bring the red knurled wheel of the pitch control (R 14) into a center position.

Adjust the speed potentiometers F 45, 33, 16 to a standstill of the respective stroboscope ring:

F 45 at 45	RPM
F 33 at 33 1/3	"
F 16 at 16 2/3	"

When a special adjustment has been done, it is necessary to recheck the output voltages according to 1) and 2).

2. Maintainance

2.1 Turntable. The turntable bearing shaft revolves in self-lubrication bearings. Under normal conditions lubrication is not necessary before several 1000 hours of running. When lubricating of the turntable bearing is necessary use exclusively Caltex Regal Oil B (ROB) as supplied with our lubrication kit available as an accessory at your dealer.

2.2 Motor. Due to the slow operating speed of the synchronous motor no lubrication is necessary under normal operating conditions.

2.3 Drive-system. The TD 125 turntable, the belt, the motor pulley and the periphery of the inner turntable should be entirely free of any trace of oil or grease. If necessary clean them with a lint free cloth dampened with denaturated alcohol or spirit.

3. Replacement of parts

3.1 Neon stroboscope bulb

Remove the inner and outer turntable, the neon bulb is then accessible, located under a cylindrical lens at the upper edge of the black stroboscope plate. After unscrewing both screws Fig. 3, (1) left and right beneath the lens, the lens and the neon bulb in its plastic housing can be removed. Then both lead terminals may be pulled off the neon bulb.

3.2 Generator printed circuit

The entire generator circuit board can be removed after unscrewing both hexagonal slot screws which are accessible through the holes in the printed circuit Fig. 4 (3).

The power and the motor leads may be unsoldered at the printed board terminals. The colour code of the motor leads are indicated at the copper side of the printed board.

For all replacements described in the following part it is necessary first to remove the spring suspended chassis.

Unscrew the earth connecting cable between both chassis at one end Fig. 4 (5). Unscrew the nuts Fig 4 (6), remove the spring washer, the spacer and the rubber grommet which are situated under every knurled nut. Now the spring suspended chassis can be removed.

3.3 The main switch

The microswitch Fig. 5(7) is attached by means of two 3 mm metrical screws Fig. 5(8) which are screwed into a threaded plate behind the main chassis. After replacing the main switch it has to be adjusted in such a way that the switch lever positively actuates the switch.

For this reason tighten the screws so that the micro-switch can be moved. When the switch is correctly adjusted fasten the screws completely.

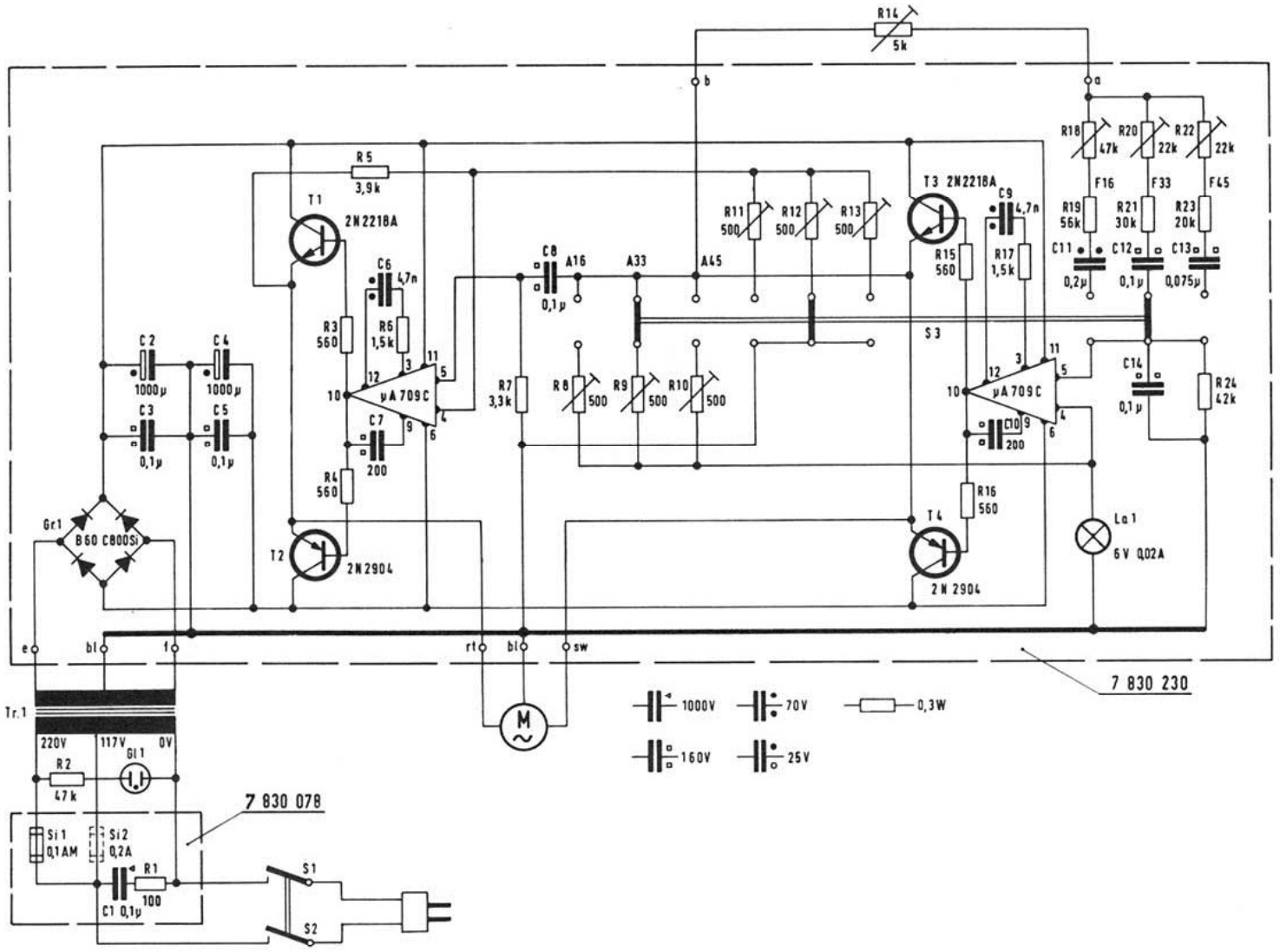
3.4 The stroboscope lens system

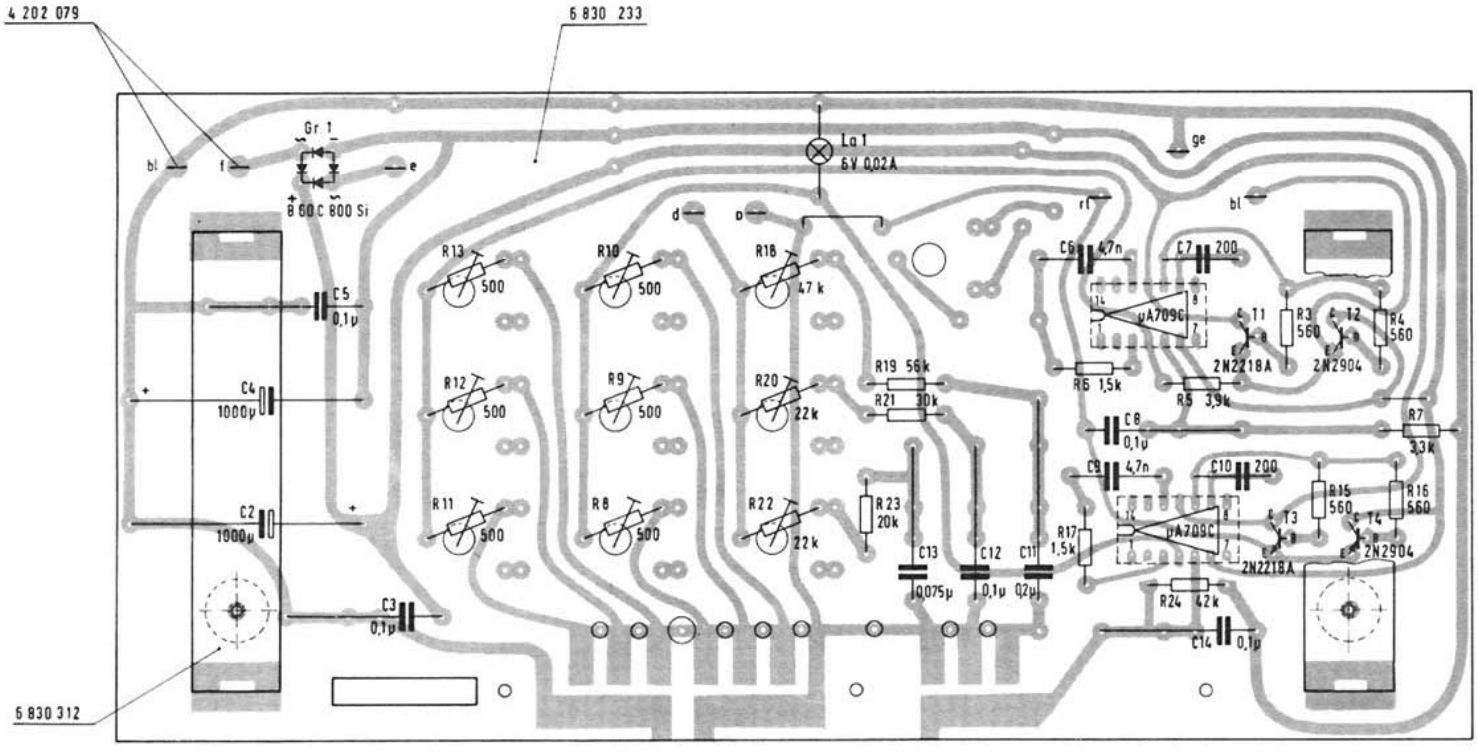
Normally it is not necessary to replace these parts, but the mirror and the lens system may be soiled after a certain time. To clean this system unscrew both screws Fig. 3 (2) and remove the entire neon bulb carrier with the lens system.

Then the mirror under the front panel is accessible too, for cleaning purpose.

3.5 The front panel

Remove first the slide-bars. They are fastened with a hexagonal slot screw. Then unscrew the three oval headscrews which are accessible at the front edge of the operating panel after the suspended chassis has been removed.


R14 5k
b
a
R18 47k
R20 22k
R22 22k
F16
F33
F45
R19 56k
R21 30k
R23 20k
C11 0,2µ
C12 0,1µ
C13 0,075µ
R5 3,9k
T1 2N2218A
C6 4,7n
R3 560
R6 1,5k
C8 0,1µ
A16
A33
A45
R11 500
R12 500
R13 500
T3 2N2218A
C9 4,7n
R15 560
R17 1,5k
S3
C2 1000µ
C4 1000µ
C3 0,1µ
C5 0,1µ
R7 3,3k
R8 500
R9 500
R10 500
µA 709C
C7 200
R4 560
C10 200
C14 0,1µ
R24 42k
R16 560
T4 2N 2904
La 1 6V 0,02A
Gr1 B60 C800Si
T2 2N2904
e
bl
f
rt
bl
sw
7 830 230
1000V
70V
0,3W
160V
25V
Tr.1
220V
117V
0V
Gl 1
R2 47k
7 830 078
Si 1 0,1AM
Si 2 0,2A
R1 100
C1 0,1µ
S1
S2


4 202 079
6 830 233
bl
f
Gr 1
B 60 C 800 Si
e
La 1 6V 0,02A
d
b
rt
bl
ge
C5 0,1µ
C4 1000µ
C2 1000µ
C3 0,1µ
R13 500
R10 500
R18 47 k
R12 500
R9 500
R20 22k
R11 500
R8 500
R22 22k
R19 56k
R21 30k
R23 20k
C13 0,075µ
C12 0,1µ
C11 0,2µ
C6 4,7n
C7 200
µA709C
T1 2N2218A
R3 560
T2 2N2904
R4 560
R6 1,5k
R5 3,9k
C8 0,1µ
R7 3,3k
C9 4,7n
C10 200
R15 560
R16 560
R17 1,5k
T3 2N2218A
T4 2N2904
R24 42k
C14 0,1µ
6 830 312

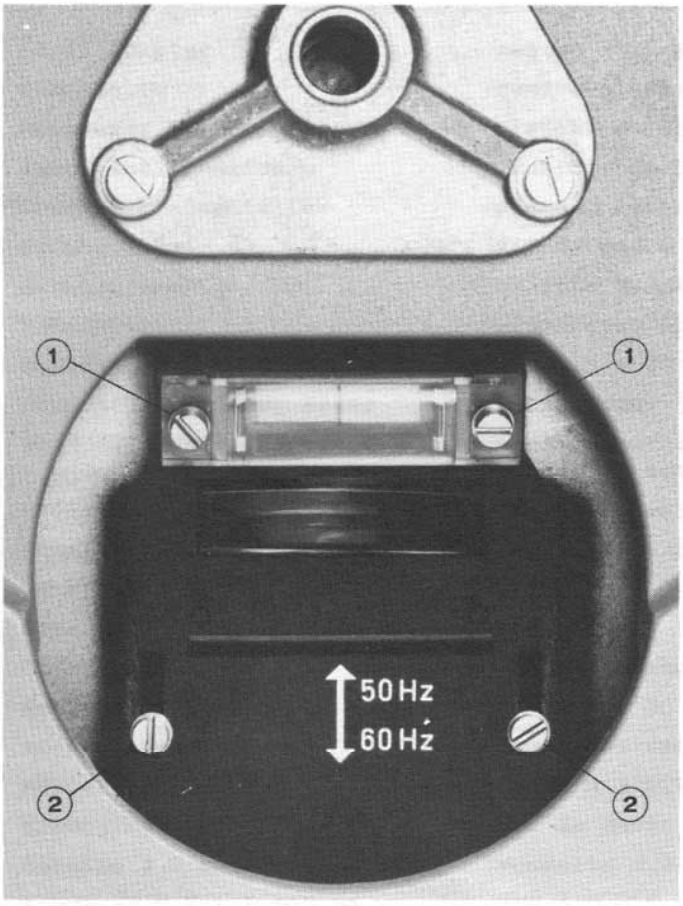


FIG. 3

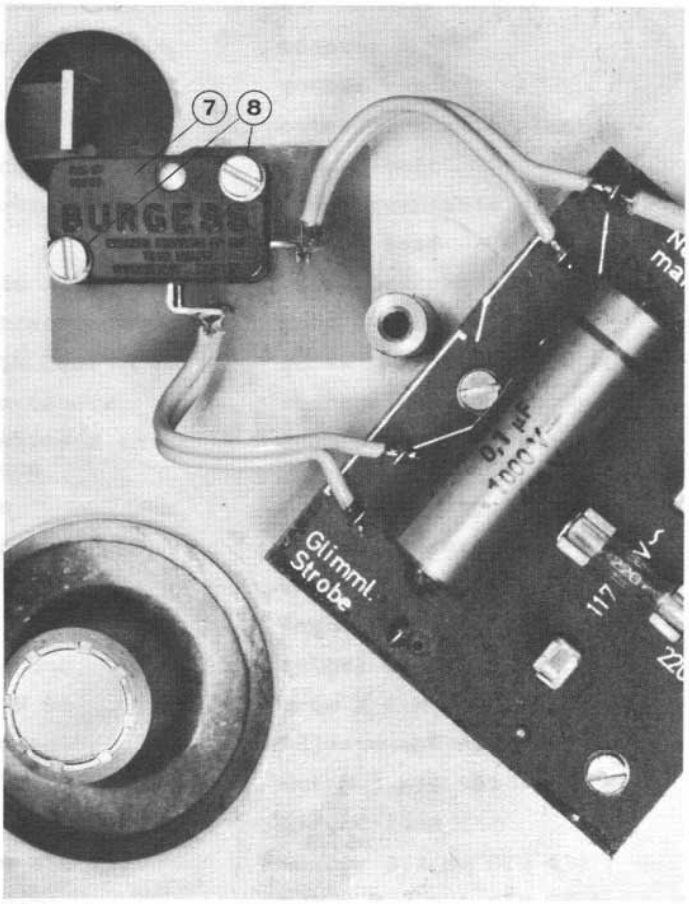


FIG. 5

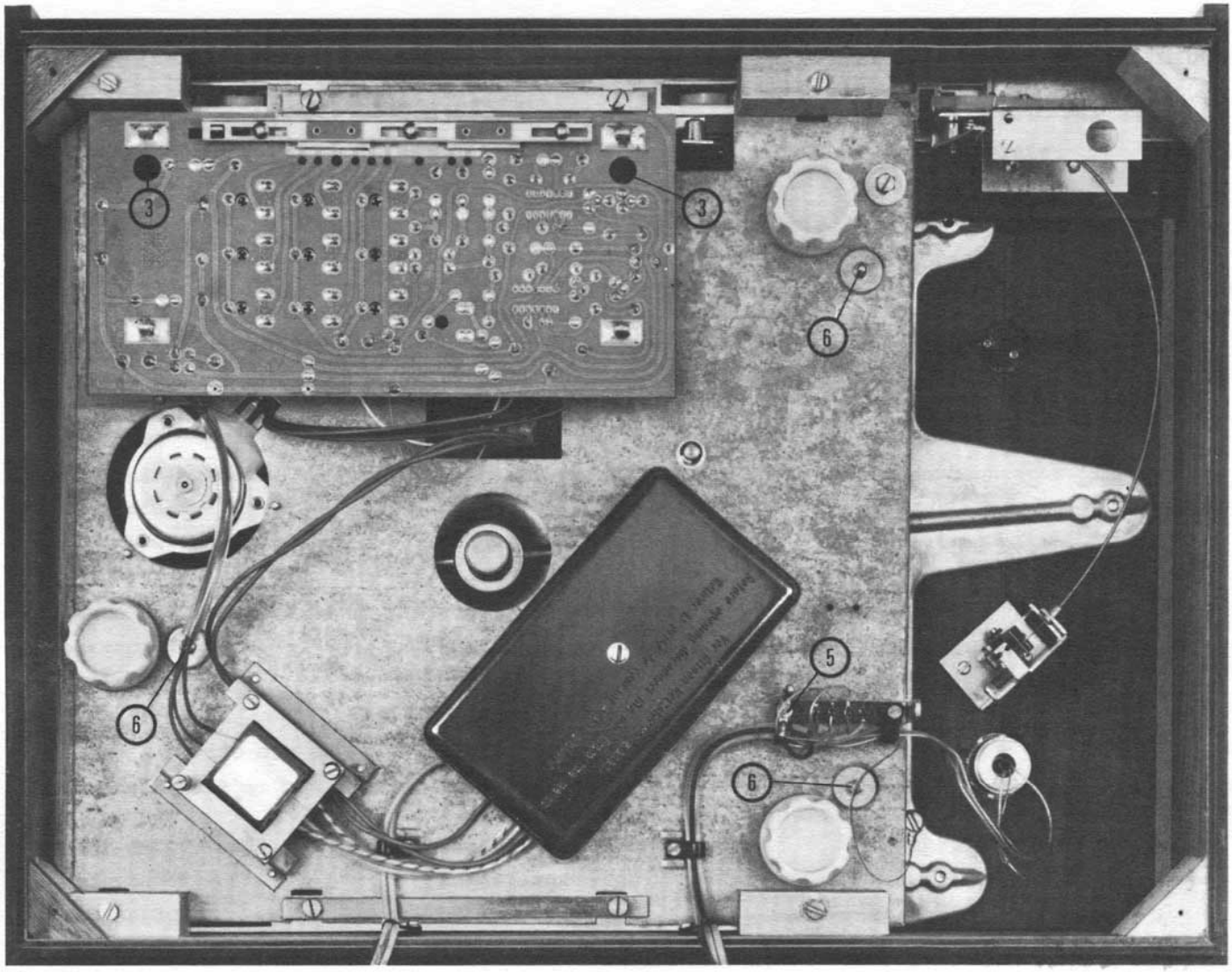


FIG. 4