

## Sansui Europe Service Information

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SSI-0004E

Models : - 9090, 8080

### I. 9090, 8080

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#### A. Causes :

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In these models it may happen sometimes that one or both channels get broken. In this case it is possible that the protector relay gets broken by contacts which are melted. It may also happen that some conducting lines on P.C.B. F-2547 burn out by an excessive external (over)load, f.i. when as well the "A" as the "B" speakers are switched on.

The breakdown of the relay can be caused when the +B fuse breaks. At that moment, there is a voltage of -60V at the center point, which causes a current of approx. 7.5A with a load of 8 Ohms. Another reason can be leakage of ZD.01, 02 or a bad earth contact at P.C.B. F-2546.

On the other hand, an overload makes that the output is almost short-circuited, and this can make the print-lines burn

#### B. Modification Procedure

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1. To protect the P.C.B. F-2547, the following points have to be done :

- Resistors R13 and R14, 10 Ohms have to be replaced by special fusing resistors of 4.7 Ohms 1/2 W. See fig. 1.
- The jumper connecting some relay contacts to earth, as shown in fig. 1, has to be removed.

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2. In the fuse-circuit of F-2546, the following points have to be done :

for 9090 : - Fuses F07, 08, 09, 10 originally 6A, have to be replaced by 10A.

- Fuses F03, 04 have to be replaced by 10A. In case there is no fuse or fuse-holder installed, the jumper has to be removed and fuse-holders have to be installed.

- For all fuses, new labels have to be fixed.

for 8080 : - Fuses F07, 08, 09, 10 originally 5A, have to be replaced by 10A.

- Fuses F03, 04 have to be replaced by 7A. In case of missing fuse-holders, please refer to 9090.

3. The earth contact on P.C.B. F-2546 can be ameliorated by soldering a piece of mesh-lead or any piece of thick, well-conducting wire, from point O3 ( or O6 ) to the adjacent earth lug, as shown in fig. 2.

4. For the protection against overload the following has to be done :

- Check on P.C.B. F-2436-1 if the two points of coils L01, 02 are connected by a jumper.

If so, please remove the jumper.

- Connect one wired-in fuse from point M on P.C.B. F-2436-1 ( See fig. 3 ) to point N or to point O, depending upon the position of resistor R44.

- Connect one wired-in fuse from point P on P.C.B. F-2436-1 ( See Fig. 3 ) to point Q or to point R, depending upon the position of resistor R43.

- Fix the fuse labels to the print on the adequate places.

for 9090 : 7A wired-in fuse + label

for 8080 : 6A wired-in fuse + label

5. Also for the same reasons, the following points have to be done :

- On the original prints F-2546 there is a jumper between points 38 and 36, and between points 37 and 35. Those jumpers have to be removed.

Yellow

Blue

Yellow

Gray

.../...



- It is also possible that these connections are made, like shown on fig. 4, from point E to point F and from point G to H. Even so these jumpers should be removed.

- Make the following connections with normal wire :

- from point 04 on F-2547 to point 35 on F-2546

- from point 03 on F-2547 to point 36 on F-2546

C. It is advisable to apply this modification in any case when such a model is presented for repair.

after doing the modification, it is advisable to check the DC-voltage at the speakers-terminals and the bias current of the output stage, as described in the Service Manuals on page 4, chapter 3-1. Please note the misprinting in step 3 under "adjust for " where for model A is printed 50 mV instead of 50 mA.

D. Before controlling the bias current, please check transistors TR.01, 02, 03 and 04 on P.C.B. F-2436-1. The transistor used should be 2SC1400 or 2SC1708. However if transistors 2SC17085X or 2SC17085Y are found here, they should be replaced by 2SC1400.

E. The parts for this modification will be delivered as kits. They should be ordered as :

- Mod. kit for 9090

- Mod. kit for 8080

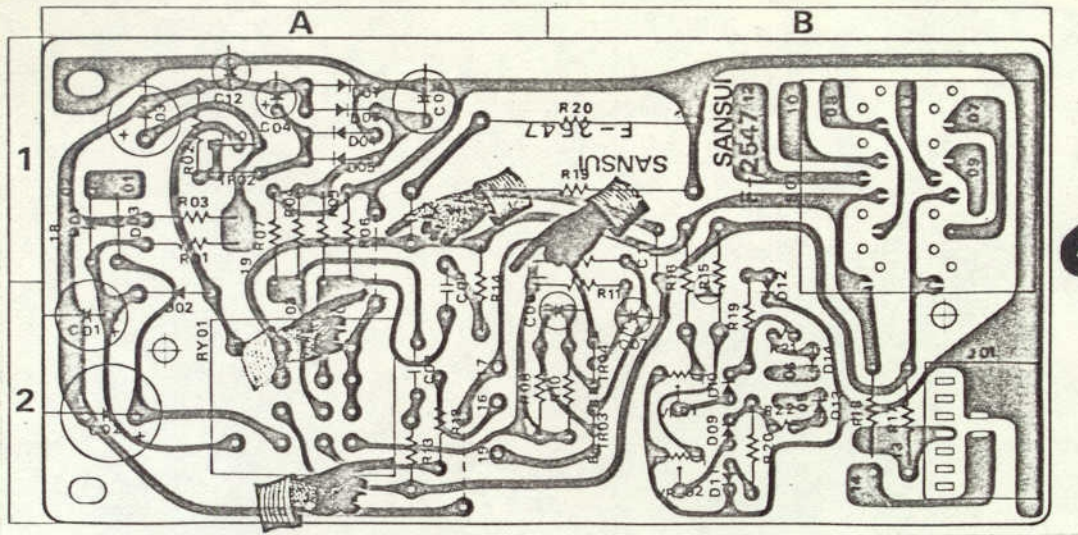
The contents of these kits are as follows :

for 9090 :	- Fusing resistor 4.7 Ohms 1/2 W	0192479	2 ea
	- Fuse 250 V 10 A	0431320	6 ea
	- Wired-in fuse 125 V 7 A	0433890	2 ea
	- Fuse-holder	2310050	4 ea
	- Label for 10 A fuse	9351790	6 ea
	- Label for 7 A fuse	9351840	2 ea

for 8080 :	- Fusing resistor 4.7 Ohms 1/2 W	0192479	2 ea
	- Fuse 250 V 10 A	0431320	4 ea
	- Fuse 250 V 7 A	0431300	2 ea
	- Wired-in fuse 125 V 6 A	0433880	2 ea
	- Fuse - holder	2310050	4 ea
	- Label for 10 A fuse	9351790	4 ea
	- Label for 7 A fuse	9351770	2 ea
	- Label for 6 A fuse	9351830	2 ea

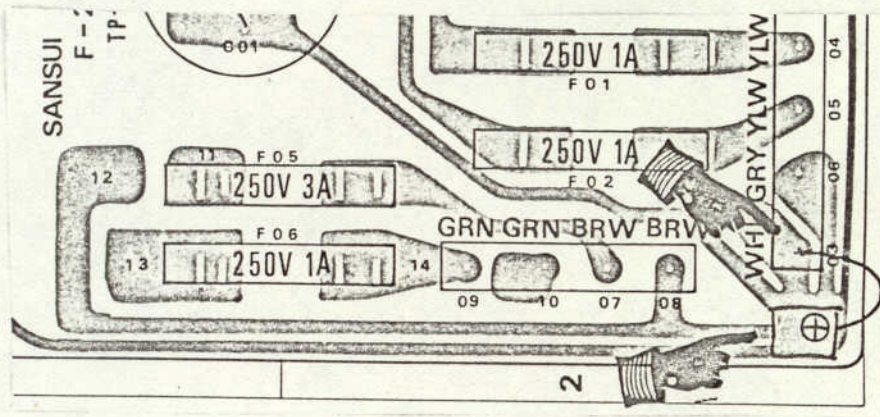
F. This modification has been done in production, as well for 8080 as for 9090, from April 1976.





9090

FIG. 1



9090

FIG. 2

9090

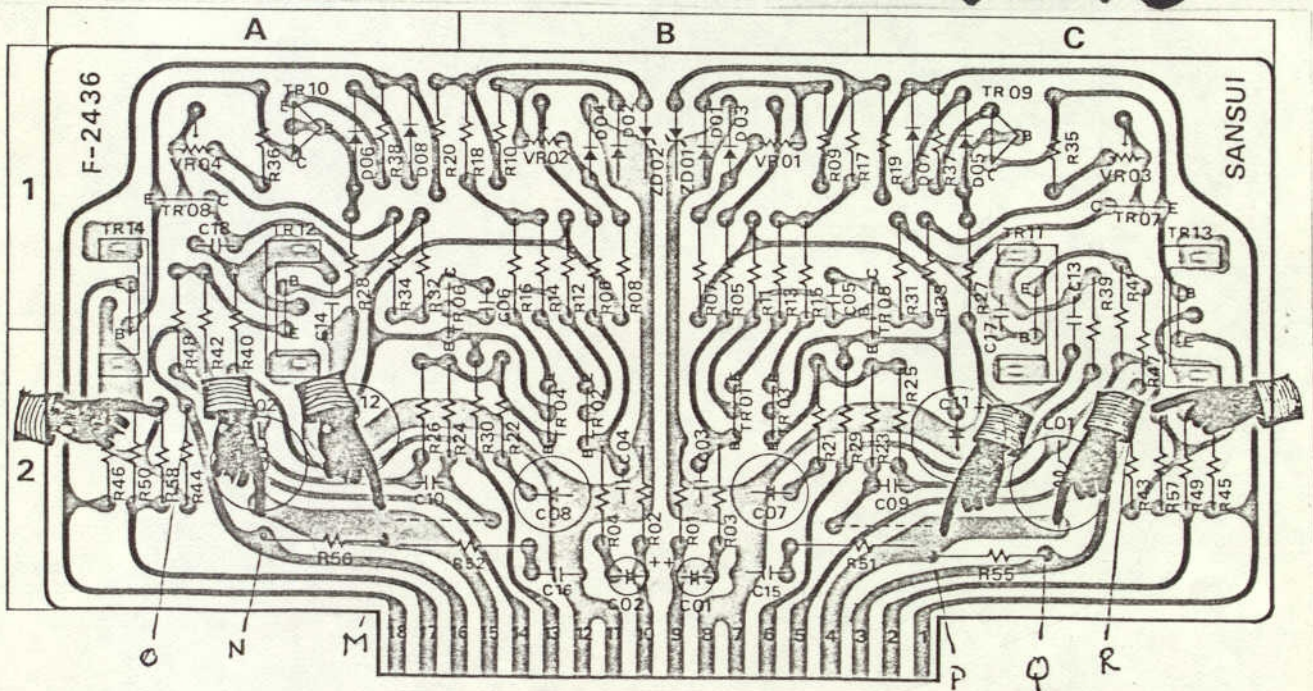
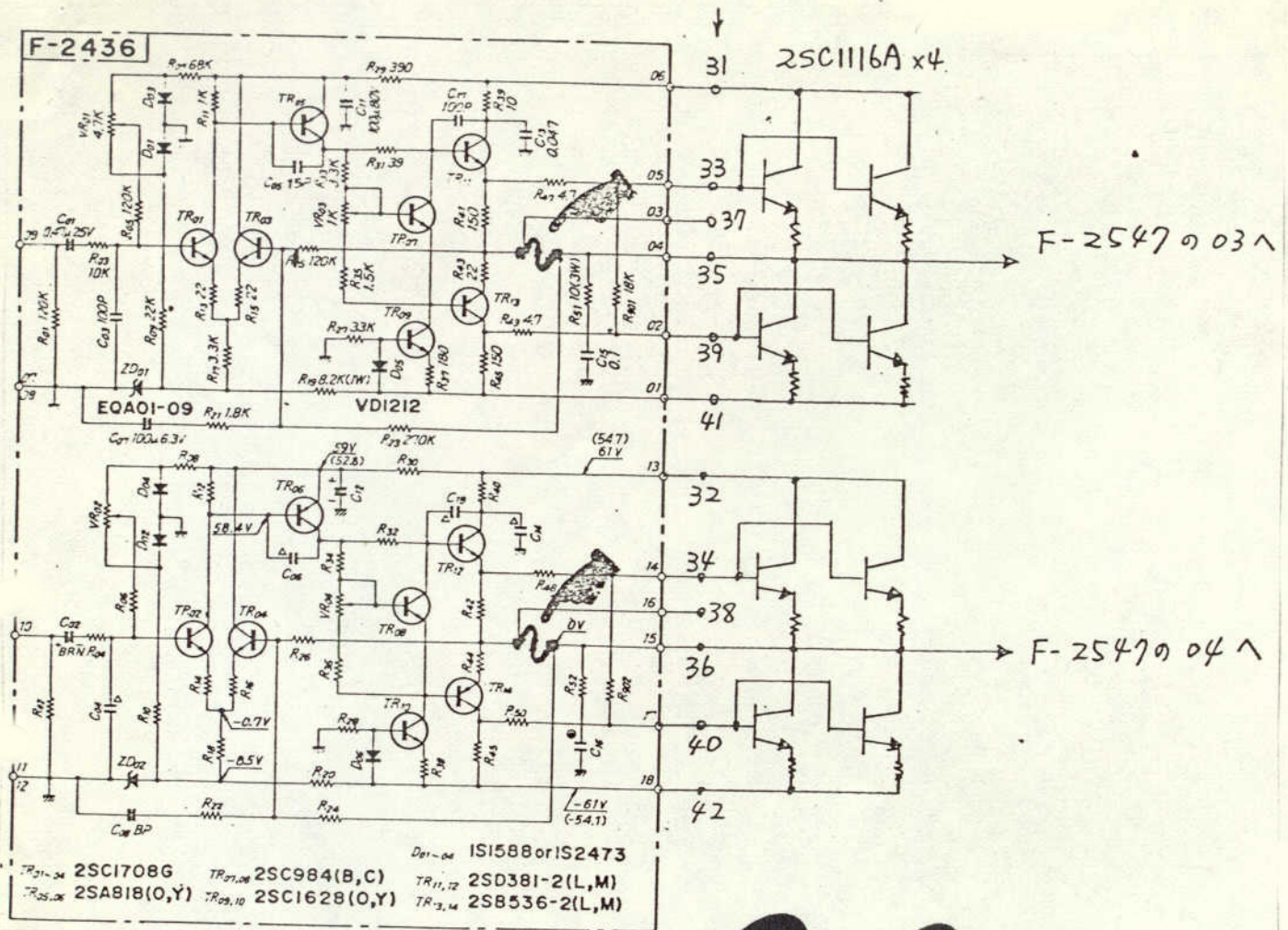
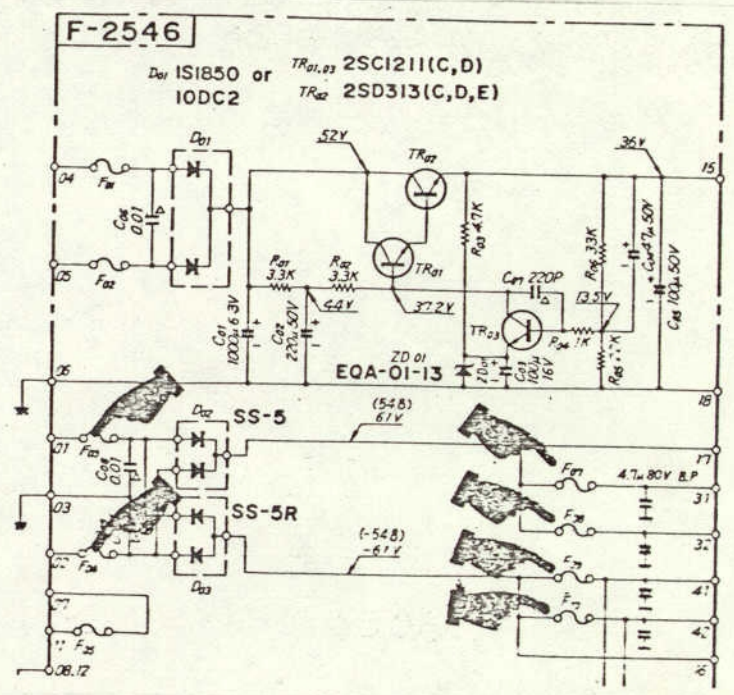
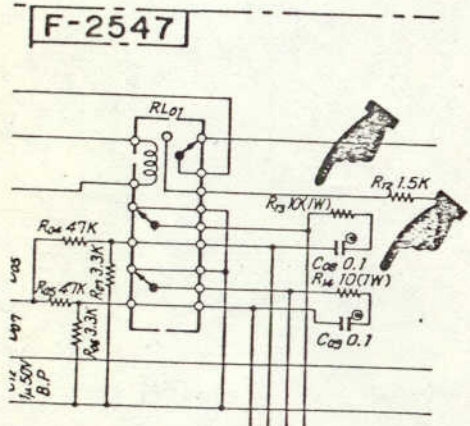


FIG. 3





9090



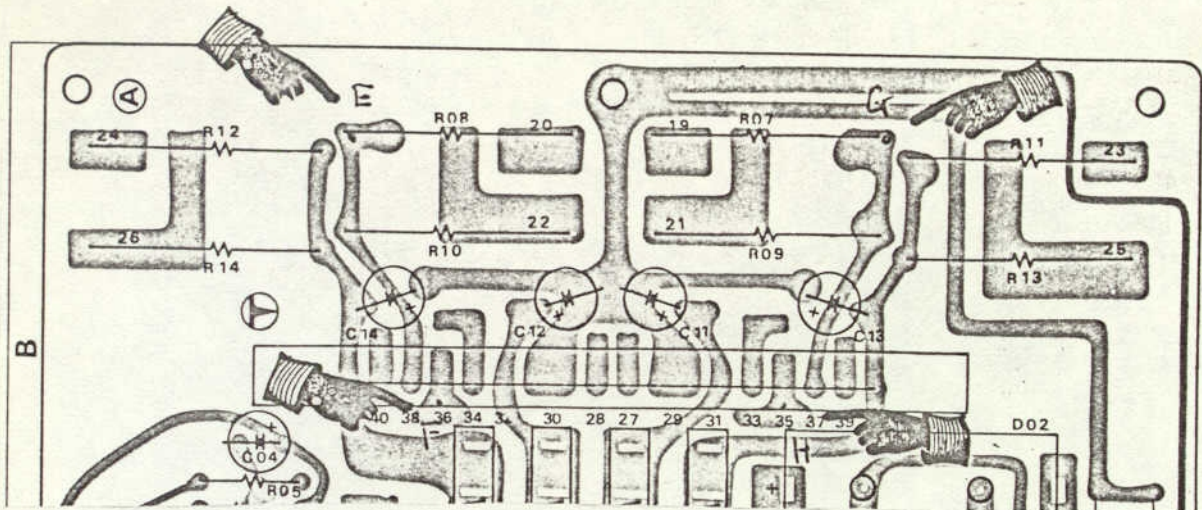


FIG. 4



