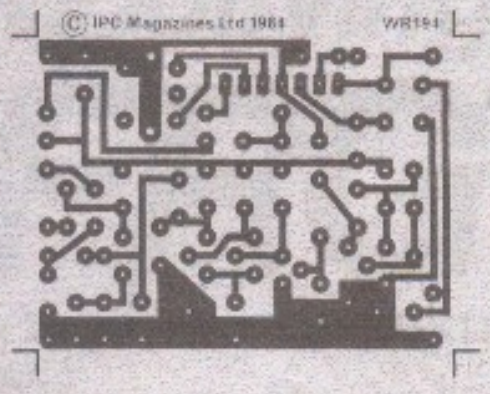

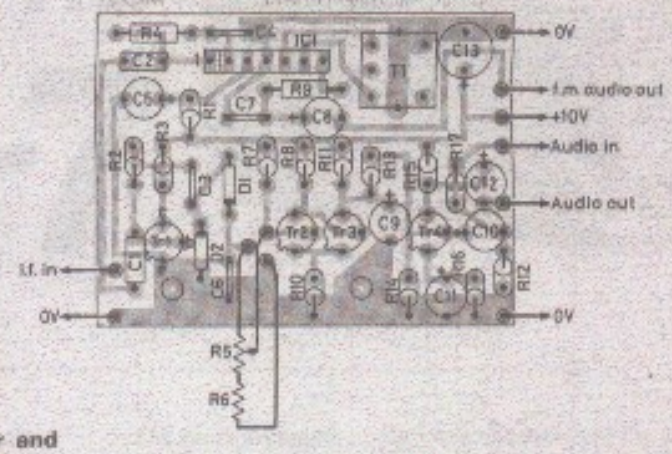

Fig. 3.2: The p.c.b. layout for the f.m. adaptor and all-mode squelch unit. Note the prefix letter Y has been omitted for clarity

WRM230

★ components

Resistors

¼W 5% Carbon film

100Ω	1	YR1
390Ω	1	YR10
1kΩ	4	YR3, 6, 12, 16
2·2kΩ	2	YR4, 9
5·6kΩ	1	YR15
10kΩ	3	YR8, 11, 17
15kΩ	1	YR14
22Ω	1	YR7
100kΩ	2	YR2, 13

Logarithmic potentiometer (reverse)

10kΩ	1	YR5

Capacitors

Miniature disc ceramic

100pF	1	YC2
270pF	1	YC1
10nF	3	YC3, 6, 7
47nF	1	YC4

Electrolytic 16V, radial

1µF	3	YC8, 10, 12
10µF	1	YC5
22µF	2	YC9, 11
100µF	1	YC13

Semiconductors

Diodes

1N4148	2	YD1, 2

Transistors

BC109	4	YTr1-4

Integrated Circuits

TA7130	1	YIC1

Miscellaneous

Printed circuit board; i.f. transformer YRCS11098AC; miniature coaxial cable.

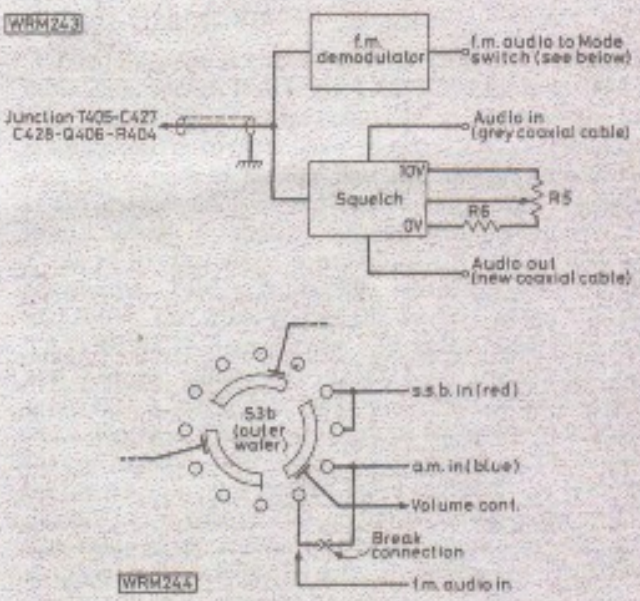

Fig. 3.3: Connection details for the new board to the FRG-7

peaked and the easiest way to do this is to find an f.m. transmission and trim it for the loudest and clearest audio output. In most areas a good source of f.m. transmissions is the UK CB service. Find a relatively weak signal and adjust YT1 for the best signal to noise ratio. Do not be surprised if some of the signals sound distorted, in the author's experience many CBers use badly adjusted accessories such as power microphones and echo boxes. However, if distortion is a persistent problem then refer to the section dealing with resistor Ry.

If all is well with the f.m. stage now test the squelch. There should be a definite switch-off point with no signal and it should be found that with the squelch set to just off, even a signal that does not register on the S-meter should open the squelch "gate". If problems are encountered, check with a voltmeter that there is a definite voltage