

Fig. 1.2

set. It must be remembered that at r.f. the potential between actual earth and the earth connection on the set will be very different.

The answer may at first appear to be to disconnect the mains earth from the set but this is against current safety regulations. The only acceptable solution appears to be the use of a separate power supply as mentioned above and this must have a floating output (i.e. not connected to the earthed case of the p.s.u.).

All of this may seem like a sledgehammer to crack a nut but for anyone living in an area where there is a high level of r.f.i. the improvement can be quite dramatic (the author's home, like most in Guernsey, is surrounded by vineries with automatic ventilators, thermostats, electronically ignited heating, etc).

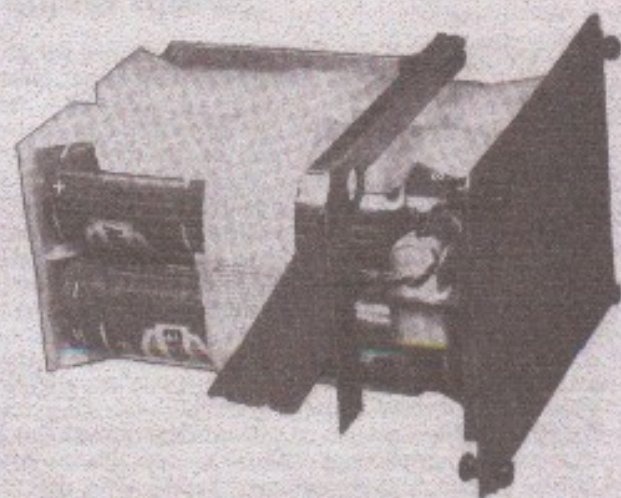
Power Switching

Having mentioned safety regulations, owners may care to update the power switching arrangements on their sets which certainly do not meet present safety standards. The problem lies in the power switch S5 which carries both mains and d.c. Making the set safer is neither complicated nor expensive but consists of using S5 to switch both live and neutral and transferring the d.c. to a switched volume control. This will mean that the existing volume control will have to be replaced but note that a standard European style one with $\frac{1}{2}$ in. shaft will not be suitable. Don't discard the existing volume control if you intend adding the f.m. unit as it will fit the space behind the RECORD socket and so act as the squelch control. However, a replacement Japanese version with 6mm shaft is available from Cirkit (Alps 10k Ω log with d.p. switch).

When the set is used with a separate supply or on batteries the mains lead is something of a nuisance and so one final improvement in this area is to remove it and fit a mains chassis plug to the back panel and a line socket to the lead. One of the small circular types made by Bulgin is ideal or a rectangular IEC type can be used which may, if desired, incorporate mains filtering (useful for flat dwellers who can't run a proper earth).

Battery Packs

Later batches of FRG-7s sold in the UK were supplied with a slide-in battery pack that houses eight U2 type cells. Owners who do not have one can still get one from South Midland Communications but they warn that supplies are limited. Anyone who uses batteries regularly may find that it is worthwhile fitting NiCads. Even though the U2 types are very expensive, they could still be a worthwhile investment in the long run and it is an easy matter to incorporate a charging circuit in the set.



Hearing it Sideways

Another worthwhile add-on for the set is an f.m. demodulator. This allows reception of the increasing amount of f.m. traffic on both the 27MHz CB band and 28MHz Amateur band and also provides good results when using a 144MHz converter.