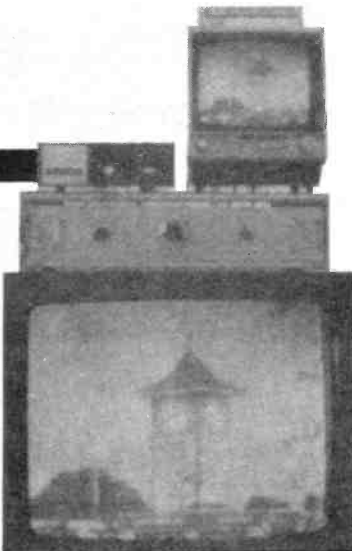


A Simple Amateur Television Station

Build your own amateur television station in a series of easy stages. Although ready made equipment may be included, the accent will be on home construction. Pt 1: a pattern and synchronisation generator



Amateur Television is a mode via which fast moving TV pictures can be exchanged. TV transmissions have taken place on the Amateur bands since the late 1940's early 1950's. Amateur TV should not be confused with SSTV where only still picture exchanges are possible.

The standard used in this country by Amateurs is 625 line negative modulation, that is to say the same standard as used by the ITV and BBC for their UHF service. The 70cms band is by far the most popular band for TV Amateurs but 24cms is now starting to show signs of activity. Receiving Amateur Television on the 70cms band has never been easier. The aerial can be any good 70cms aerial with the J Beam Multi Beam being the most popular. At UHF the down lead should be kept as short as possible and good quality coax is essential regardless of the mode, losses can be alarming.

The only problem comes in adapting your television set to the 70cms band, a part of the spectrum not normally tuned by the average domestic TV set. The way around this problem is to use an up converter, there are several on the market and all perform equally well. Microwave Modules, Wood & Douglas and Fortop all market these devices.



If you are not sure of the Amateur Television activity in your area then it is wisest to purchase a commercially built and tested converter rather than building your own.

The up converter plugs directly into your UHF TV aerial socket and usually converts the 70cms band to about Channel 34.

A good guide to activity is to listen on the two meter talk frequency of 144.750MHz for Amateur TV activity, when you are sure someone is transmitting, then tune your TV around Channel 34. There will usually be an increase in noise as you cross 70cms indicating the part of the band where the converter performance is optimum.

It goes without saying that getting the transmitting station to point his beam at you will give the best results. As a guide the station needs to be about S7 or stronger for a successful TV contact. TV pictures can often be exchanged between Amateurs in this country and France, Germany and Holland under lift conditions.

Once you have mastered the technique for receiving TV the next logical step must be transmitting your own TV pictures.

In the coming series of articles I will be putting together a simple low