

not operate on the clock, and once the external DC supply is removed the clock will reset to zero after about ten seconds.

Other Facilities

There are a couple of other front panel controls. Firstly, there is a memory clear button which will clear out all information from the current memory — useful if you want to avoid the scan stopping on a particular frequency (although you will have to re-program it again if necessary). An RF attenuator is available which puts in some attenuation at the front end if you run into problems. It was useful in a couple of cases when local 2 metre stations were on the air (local being 2 doors away). Finally, a tone control enables some degree of alteration of the received signal response but only in the form of a simple top-cut.

The rear panel has a number of outlets for accessories. The CAT system comes out via a 6 pin din socket, and separate outlets are available for 'band' control via a 4 pin Molex connector (this provides binary band data for possible future options). 3.5mm jack outlets cover a constant level record outlet (70mV into 50k), external speaker, and a multiplex output for the FM wide mode for an external stereo demultiplexer (this is not available as an accessory).

Phono sockets allow for video out and a mute facility (short to disable Rx). The antenna connects via an SO239 socket and 13.8V DC through a coaxial type input — with another outlet giving +8V at up to 200mA for accessories. Two preset buttons control of the audio mute setting for FM wide and TV AGC, for the optional video interface.

Manual

The FRG9600 manual is in A5 format and runs to 40 pages. Comprehensive instructions on operating the receiver are given, ideal for beginners, with information on what type of traffic you may expect to hear on the various bands. The CAT system is covered in some detail. The control data required is groups of five bytes, the 'TTL' level (0V = Mark, +5V = Space), with eight data bits, two stop bits and no parity, at



4800 bits/sec, with each byte sent within 200mS of the last provided by the appropriate FIF series CAT interface.

There is no other technical data in the form of either a block, or circuit diagram! Power requirements are DC +12 — 15V at 550mA max, and the receiver consumes 100mA with the power switch off. It weighs a mere 2.2kg. A number of bits and pieces come with the basic set — a telescopic whip antenna for portable operation, DC power connector with 1.8m of lead, a mobile mounting bracket and wire stand.

In Use

I found the FRG9600 very pleasant and interesting to use over the period of the review. With this sort of scanner freely available for anyone that wants to buy it, it is obvious that many users of the radio spectrum are going to have to watch what they say! From press reports already in the national news papers, users of the mobile radio telephone service appear to be unaware that they can be easily monitored. Besides actual business information, someone told me they heard a user giving the police information that he was going on holiday and could they watch his house — complete with address!

Using the receiver on the amateur bands, I did try monitoring various 2m beacons over extended periods with useful results — being able to scan these beacon frequencies plus SSB and CW spot frequencies rapidly gave clues to lifts with 'hands-off' operation. Although not tried, monitoring overseas FM broadcast stations in

sporadic E propagation.

As a receiver there is little to comment on, other than the fact that it does its job very well. With a simple discone, I had no problem in hearing many signals over the whole spectrum, and the quality of FM broadcast reception is good, especially with an external speaker (the internal speaker is adequate for most monitoring though). 2 metres was only a little down on the Yaesu FT270RH, but the 9600 was noticeably worse as far as crossmod went with local stations around — but then it doesn't have a narrow band input filter at the RF stage. Frequency selection is easy and the options for scanning are comprehensive, with no problem in getting at and using the 25 buttons on the front panel (some are colour coded to assist).

One comment on scanning — if you scan AM channels continuously (such as air band) the receiver does emit a click at each step which can get on your nerves. The SSB facility came in useful, but unfortunately the selectivity is the same as for AM narrow (a 2.4kHz NTK ceramic filter). So the shape factor is not really good enough under crowded band conditions. This would not normally be a problem on VHF however.

Overall, a very nice receiver which has immense possibilities for computer control, but will do everything that the VHF/UHF enthusiast could want under manual control. I would certainly rate it above the AOR2001 in terms of operating ease and its higher frequency coverage — although it is rather more expensive...

Thanks to SMC Ltd, of Southampton for the loan of the receiver. At the time of writing the FRG9600 was priced at £475 inc.