Ten pre-programmed bands, each with their own upper and lower frequency limits, steps and modes, may be used for searching out active frequencies within a pre-defined frequency range. Although these are marked as 'AIR VHF1', 'AIR VHF 2', 'MARINE', 'CAR TEL' and so on, they may be modified or programmed to any user requirments wihin the frequency range of the set. A press of the band number button, followed by the 'Search' button will then initiate a search of the appropriate frequency range in the programmed steps, the scanner halting on active frequencies. Alternatively, a search of the entire frequency coverage range of the scanner can be made simply by pressing the 'Search' button.

Memories

100 memory channels are available, organised into 5 banks of 20 channels each. Each bank may be scanned individually or any number of banks may be selected to be scanned one after another. Memory information can be entered directly simply by entering the frequency, followed by the desired memory channel number and a press of the 'Function' and 'Memory Write' buttons, any previous information being overwritten. Alternatively new frequencies found to be active when searching a pre-programmed frequency range can be directly entered into consecutive memory channels by repeated presses of the 'Function' and 'Memory Write' buttons.

Scanning

A single button push will commence the set scanning all the required memory channels, a further press stopping the scan. The speed of the channel/frequency search may be switched to either fast or slow depending on individual requirements, these corresponding to either 8 or 20 channels per second. While in scan mode individual memory banks may be toggled in and out of the scan sequence simply by pressing the bank number key. A 'Skip' facility lets the set either halt on active frequencies for the duration of the received signal, or halt only for 7 seconds before resuming regardless of activity. In a similar manner to other scanners, a 'Delay' function may be toggled in or out of use, when the set either continues scanning immediately the received signal drops, or pauses for a few seconds on the frequency before the scan resumes. Finally, to prevent the scan or search locking up on silent carriers, an 'AFD Scan' may be enabled where the receiver will pause for 1 second only if a blank carrier is found and then resume the scan or search.

Any number of channels may be locked out of scan mode if required, by using a channel 'Pass' function, this still allowing manual selection by direct channel number entry. A 'Priority' scan function is also fitted, here any required channel may be designated as the 'Priority' channel which is checked every 5 seconds for activity, the set locking onto it when active.

When monitoring a single frequency, a 'Battery Save' mode may be enabled if required. Here the receiver is effectively switched off for approx. 5 seconds, then on for 2 seconds, with this cycling mode being temporarily defeated whenever the activity is present on the channel.

Accessories

The Jupiter II at £299 comes supplied as a basic unit with a carrying strap, with a range of optional matching accessories being available if required. These include a flexible helical whip, belt clip and protective carrying case, a plug-in 12V power cord and nicad charger, together with nicad cells themselves. A well written 14 page user manual comes supplied with the scanner, this gives comprehensive operating instructions and technical specifications but no circuitry information. As with most VHF/UHF scanners, what is almost a necessity is a good frequency guide, this often forming the most useful accessory for a scanner. 'The Complete VHF/UHF Frequency Guide' (Spa Publications, featured HRT June 1989) gives very concise details and is well recommended. Other specialised publications such as airband and marine frequency/usage guides also exist.

In Use

After a short nicad charge I switched the receiver on, and within seconds the semi-local 2m repeater was coming through without even having to open the instruction manual. Using the supplied telescopic whip, I was surprised to note the good sensitivity of the set, and by altering the length of this to roughly that of a quarter wave at the main frequency of interest, it was possible to 'Peak' reception a little further. The audio quality from the small internal speaker was excellent, with few problems of distortion or cone 'rattle'

as one sometimes finds with small receivers of this type. There was ample audio level for reception in fairly noisy surroundings, such a when walking along a busy road or when travelling in a saloon car.

I sometimes felt that I would have preferred a more flexible aerial, such as the optional helical, than the standard telescopic whip for portable use. Besides sometimes being uncomfortable when the set was operated in an inside jacket pocket, I feel it would only be a matter of time before the inevitable happened and the telescopic whip would become broken. Although not quite as small as some of the tiniest handheld