

peaked at 2125Hz, but the SPACE tone can be peaked anywhere between 2225 and 3125Hz, thus allowing virtually any other shift on RTTY to be tuned in.

CW TUNE/AFSK SHIFT: This small window conceals a bargraph type LED display which is used for peaking signals. It is far easier to use on RTTY than describe, and the manual deals with this adequately. Once familiarised, you can tune in an RTTY signal in a second or so.

The knob to the right controls the frequency of the audio filter in "VAR" mode.

CR/LF - AUTO: These two controls allow for control of printer carriage return/line feeds. The first will send a CR/LF when depressed once, either when receiving or transmitting Baudot/ASCII, and is useful for generating missed instructions on receive.

The second activates an internal character counter which will generate a CR/LF character at the first space following 60 characters, or after 71 characters have been sent. This saves having to keep tabs on what you have sent when using a key to send RTTY, and stops the chap at the other end having to insert CR's.

NORM/REV: The usual switch to allow reversal of the Mark/Space conventions. Normal is with the Space tone higher than the Mark. Sometimes the other station will have his tones reversed, usually in error, or the receiver may be set to the wrong sideband for correct tone recovery, and this switch allows this to be corrected.

OFF/ON: Controls power to the unit.

BUFFER FULL LED: Besides indicating the I.D. Buffer is full, there is also a 1024 character receive buffer used for the output device. This LED will light when there are only 25 characters left. If the buffer does fill completely, the display blanks, but none of the buffer contents are lost.

The reverse of the unit has an additional five pushbuttons, two presets, and 13 sockets. The two presets allow the volume level to the internal speaker, and the output level of the AFSK tone to the transmitter to be set.

The pushbuttons cater for control of the external hard copy printer, which may be disabled on Transmit or Receive or both; a

A FARM WHERE GODA CHEESE IS MADE AND BECAUSE I LIKE CHEESE
VERY MUCH I BOUGHT MANY KILOS OF CHEESE AND BROUGHT IT
BACK WITH ME TO GERMANY....AND WE VISITED THE CHILDRENS
PARK I BELEIVE IN THE SUBURBS OF AMTERDAM CANT REMEMBER
BUT I AM SURE YOU KNOW THG PRRCQX UMBTBHEUVMED TO THE
CHILDREN AND DID WE HAVE FUN THERVERY INTERESTING....

AND OF COURSE ZHE HOUSE OF PARLIMENT IN THE HAUGE AND
Copy from external printer

"down-shift on space" (both transmit and receive to help prevent garbled copy) facility; and the Transmit AFSK Tone shift, at either 170 or 850Hz.

The next set of sockets are all phono type. Tone Output, two transmit key outputs (one positive, one negative), the Transmit/Receive input (close external contacts to transmit), and two more for Mark and Space outputs to a Scope for tuning purposes. The remaining phono outputs a TTL level teletype signal, low during Mark.

Audio input to the unit is via a 3.5mm jack socket. This input is quite sensitive and happily allows direct connection across an existing speaker. An additional jack also allows audio output from the unit (it is in fact paralleled with the other jack).

Printers & keyboards

A 26 pin connector allows interface with an ASCII printer and keyboard if desired. This is a parallel Centronics compatible, for Centronics, Epson, and almost any of the other popular printers. The connector type isn't defined, but is available from RS Components if you need to get one. Also the connection details given on page 32 of the manual have got one pin number wrong — under OUTPUT PINS, pin 1 should read pin 7, otherwise one of the data lines will end up at 0v.

For the review, an EPSON MX80 was used for hard copy, wired exactly as per the manual (except pin 1!). This worked perfectly satisfactorily, although generating an extra line feed (which could have been removed internally by resetting a DIP switch internal to the printer).

Standard current loop input and outputs are also provided for

teletype machines, with these isolated from the rest of the units electronics by opto-couplers. The manual luckily warns you that the external supply MUST be limited to 60mA, as this is not done internally.

The remaining socket is that for the key, a standard 0.25" jack. It may be connected to a key, or a positive keyed output from a keyer, or to a keyboard unit's output.

Interfacing with a micro

If you want to go the whole hog and interface the unit with your microcomputer, then an RS-232C interface could be hung onto the current-loop input/output terminals. However, if you have a computer, you probably won't be using this unit anyway, as the majority of the electronics will already be in your possession. For somewhat less than the cost of this unit, you would be able to buy a very comprehensive RTTY/CW program, complete with message storage facilities etc. and the facilities such as sending RTTY using a morse key would have little relevance.

If you do use this facility, note that the MBA-RC, although it will output 300 baud ASCII to a printer or the Transmitter, will NOT accept it as input either from a keyboard or receiver. If you're going to input ASCII, you will have to configure your RS-232C interface for 110 baud, and the other station will also have to send at this speed. This could be a positive disadvantage, as a lot of ASCII activity in this country is on 300 or more Baud.

Manual

A 45 page photocopied instruction manual is supplied with the MBA-RC. Although the instructions are comprehensive, and include nine