RAMS IV

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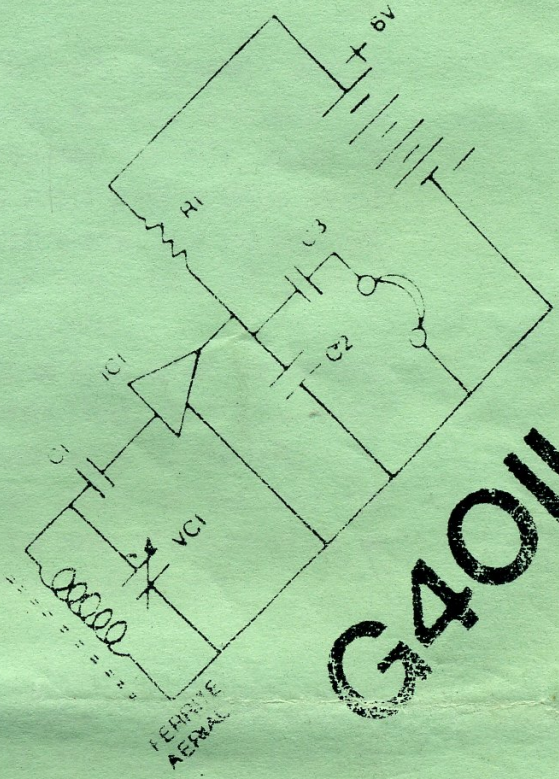

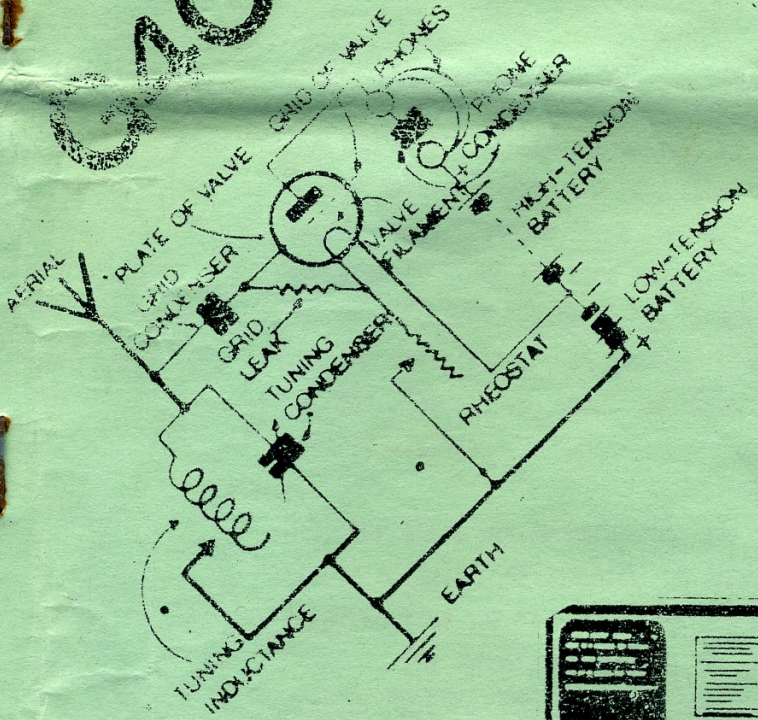

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RAMS II

The programme is a four part programme, decoding RTTY, AMTOR, MORSE & SSTV. The four modes are selectable from the menu. On loading the programme the RTTY option is highlighted, and may be chosen by simply pressing ENTER. Should you wish to choose a different decoding mode, move the highlight bar by using the UP & DOWN cursor keys, (or 6 & 7),pressing ENTER when the required mode is highlighted.

The highlight bar may also be moved betwen the two menu blocks using the LEFT & RIGHT cursor keys, (or 5 & 8). Select from the right hand block in the same way as for the left.

Audio from your receiver should be fed into the computers EAR socket. If you are the owner of a Spectrum +2, we are able to supply a suitable "add-on" cassette port.

RTTY MODE

Five baud rates are available, these being shown at the top of the screen. Selection is made by pressing keys 1 to 5, corresponding with the baud rate required. The programme will decode any standard tone shift, without the need for the operator to enter the tone spcing.

Correct tuning of the incoming signal is indicated by the two vertical bars in the highlighted boxes at the top of the screen. The tuning should be adjusted until both bars are clearly visible.

A letter shift may be forced at any time by pressing the L key, though normally the unshift on space option (USOP) will, if selected from the main menu, perform the operation for you.

The programme starts up in the NORMAL TONE mode. However REVERSE TONE operation may be selected by presing SYMBOL SHIFT. Return to normal tones by pressing SPACE.

To return to the main menu press M.

AMTOR

The SPACE & SYMBOL SHIFT keys operate as for RTTY above, switching between NORMAL & REVERSE tones.

Pressing the M key will return you to the main menu.

MORSE

Three software filter states are available, ON-700Hz, ON-1360Hz and OFF (NO filter). The state of the filter is shown at the top left of the screen, by the highlight block on L(ow), H(igh) or O(ff), corresponding with the three states. Choose the required state by pressing 1, 2 or 3.

In order to cut down on the time taken by the automatic tracking of the morse speed, a preselection of maximum speed is provided. This is shown at the top right of the display, 20 wpm, 40 wpm and UNLIMITED. (We don't know the maximum speed, but its over 250wpm!!)

If you have efficient filters in your receiver, you may prefer to run without software filtering. For very high speed morse you will need to switch the software filter OFF. Both 700Hz and 1360Hz filters seem to work well at up to 20 wpm. Between 20 & 40wpm the 1360Hz filter must be used.
Our experience is that the faster the morse is sent, the higher the tones appear to be. If receiving true CW, using a BFO, then select the filter to suit your BFO setting.

While software filtering is useful, it is not as efficient as an external "hardware" filter.

Correct tuning of the MORSE or CW signal is indicated by the tuning square in the top center of the screen, which will flash in time with the morse. At 250 wpm, a better indication is the line of characters being printed on the screen.

SSTV

During reception of SSTV a number of keys are active, and we suggest that you keep these instructions handy until you are familiar with the operation of this mode.

CONTRAST may be taken up by pressing C & down by pressing SYMBOL SHIFT C.

PAUSE the display by pressing P

INVERSE the picture by presing CAPS SHIFT 4 & return to normal by pressing CAPS SHIFT 3

SYNCH up by pressing S or down by SYMBOL SHIFT S

RETURN to MENU by pressing M (must have a noise at the EAR port).

Pressing Z will copy the programme to an ALPHACOM 32 printer. DO NOT DO THIS IF IN 128K MODE!!! THE COMPUTER WILL CRASH!!!

SPEED. For 8 second transmissions the HOR and the VER should be set to 128, as they are on first running the programme. For 24 second transmissions VER & HOR should be at 256. (16 & 32 can also be resolved.)

Change the VER & HOR settings as follows. H sets HOR to 128, while SYMBOL SHIFT H sets it to 256. V sets VER to 128 and SYMBOL SHIFT V sets it to 256.

SAVING pictures. FIVE picture stores are available, and during reception a picture may be put into a store by pressing keys 1 to 5. As the storeage area is also used by the OSO store, it is important to store the first picture in 1, the second in 2 etc. When a store key is pressed, the border will flash to indicate that the storeage has worked. Overwrite the picture in a store by using that store key again.

OSO REVIEW and PICTURE STORE

The area of memory used is common to both the OSO review and Picture store, and it is possible to overwrite text with pictures and vice versa. Each picture stored reduces the OSO review area by 6K. The total area available is sufficient for five pictures OR 30720 bytes (characters)or a mixture. If in doubt, refer to the menu page for the amount left available. Better to save your text and pictures often, rather than risk losing them.

When in DISPLAY picture mode, pressing the letter Z will execute a COPY command, sending a screen copy to a printer. Owners of the ALPHACOM 32 printer will get better results by pressing SYMBOL SHIFT & Z.

We are often asked for advice on coping with noise which some computers generate, and which is picked up by the receiver, often to the detriment of the incoming signal. If you are unfortunate enough to suffer from this problem, you may find the following of some help.

Often the noise is radiated from the lead between the computer and the TV set. A quick check would be to power everything up and unplug this lead at the computer end. Often this results in a dramatic drop in noise levels. In this case we would look to the co-axial cable as the source of the problem.

The co-axial lead supplied by some computer manufacturers as the lead between the computer and the TV set, may not be of the best quality. This can result in radiation taking place from the lead and we therefor suggest that the cable supplied should be replaced with some good quality television co-axial cable. You may also find that you need to fit a high pass filter at the point where this lead leaves the computer.

Another cause of the problem is circulating earth currents, and we suggest that the receiver should be earthed to an outside earth spike, while the computer and TV set be earthed to the mains earth. On no account should the two be connected to the same earth.

In extreme cases the noise may be radiated at high levels from the computer board itself. In these cases, removing the computer from the case and coating the inside of the case with conducting paint, which can the be connected to the earth system has been found to do the trick. We have even heard of one gentleman who put the complete computer in an old biscuit tin!

A less likely cause of the difficulty is mains borne noise. If this should be the case then normal filtering applied to the mains leads would be the answer. Exactly the same type of filtering as used to avoid interference from the Tx entering the mains would be more than suitable.

Finally, if your transmitter interferes with the computer, then check your antenna feeder carefully. R.F. floating around the shack is bad enough, but if your feeder is radiating in the shack, then it can also be picking up inside the shack, which is, of course, something you dont want.

We hope that this will help you clear up the problem if it affects you, but please do not hesitate to contact us if the problem persists.

AA	All after
AB	All before
ABT	About
ADR	Address
AGN	Again
ANT	Antenna
BCI	Broadcast interference
BCL	Broadcast listener
BK	Break; break me; break in
BN	All between; been
BUG	Semi-automatic key
C	Yes
CFM	Confirm; I confirm
CK	Check
CL	I am closing my station; call
CLD-CLG	Called; calling
CQ	Calling any station
CUD	Could
CUL	See you later
CUM	Come
CW	Continuous wave (i.e., radiotelegraph)
DLD-DLVD	Delivered
DX	Distance, foreign countries
ES	And, &
FB	Fine business; excellent
GA	Go ahead (or resume sending)
GB	Good-by
GBA	Give better address
GE	Good evening
GG	Going
GM	Good morning
GN	Good night
GND	Ground
GUD	Good
HI	The telegraphic laugh, hiyh
HR	Here; hear
HV	Have
HW	How
LID	A poor operator
MA, MILS	Milliamperes
MSG	Message; prefix to radiogram
N	No
NCS	Net control station
ND	Nothing doing
NIL	Nothing; I have nothing for you
NM	No more
NR	Number
NW	Now; I resume transmission
OB	Old boy
OM	Old man
OP-OPR	Operator
OT	Old timer; old top
PBL	Preamble
PSE	Please
PWR	Power
PX	Press
R	Received as transmitted; are
RCD	Received
RCVR (RX)	Receiver
REF	Refer to; referring to; reference
RFI	Radio frequency interference
RIG	Station equipment
RPT	Repeat; I repeat
RTTY	Radioteletype
SASE	Self-addressed, stamped envelope
SED	Said
SIG	Signature; signal
SINE	Operator's personal initials or nickname
SKED	Schedule
SRI	Sorry
SVC	Service; prefix to service message
TFC	Traffic
TMW	Tomorrow
TNX-TKS	Thanks
TT	That
TU	Thank you
TVI	Television interference
TXT	Text
UR-URS	Your; you're; yours
VFO	Variable-frequency oscillator
VY	Very
WA	Word after
WB	Word before
WD-WDS	Word; words
WKD-WKG	Worked; working
WL	Well; will
WUD	Would
WX	Weather
XMTR (TX)	Transmitter
XTAL	Crystal
XYL (YF)	Wife