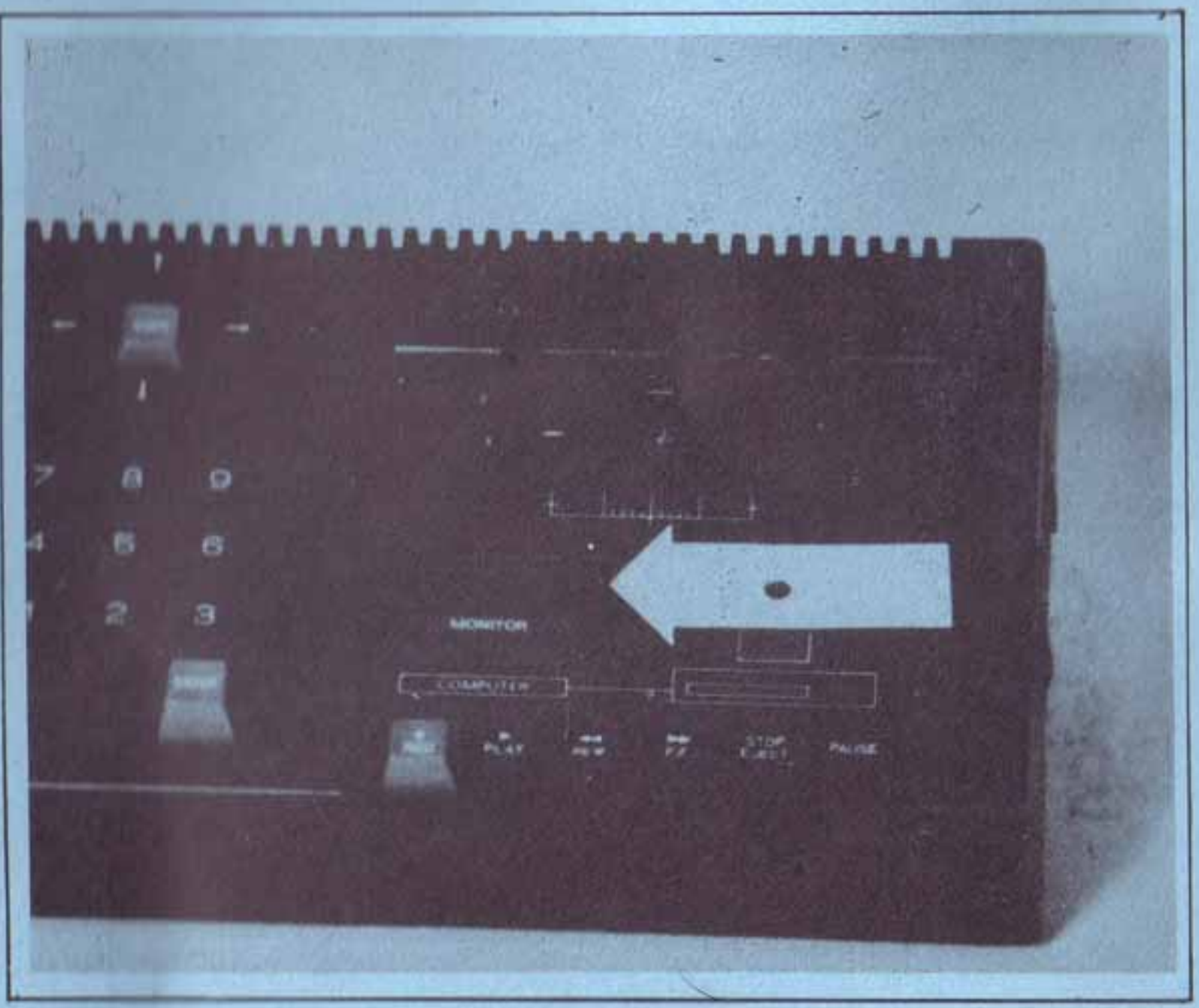
INTERCEPTOR SOFTWARE

Azimuth Head Alignment Tape

INSTRUCTION MANUAL



AMSTRAD CPC 464

AZIMUTH HEAD ALIGNMENT TAPE

INTRODUCTION

1.1 LOADING PROBLEMS

With the influx of large memory software on the market today and with most software houses developing their fast loaders, program loading reliability suffers. This is due to loading systems increaseing the baud rate in which the program is put onto the tape. This itself calls for a much more critical setting of the tape head on the cassette deck.

1.2 HAVE YOU EVER RETURNED A FAULTY TAPE ?

Many owners who return tapes to retailers are in fact returning perfectly good recordings, the problems lie in their tape recorder. The common answer by many is "Well all my other tapes work". This may be so, but from experience, as you will see when you set up your alignment. The tolerance can be more than a 360° turn of the adjustment screw to obtain a "Possible load setting". This package is designed for you to carry out this adjustment yourself and is explained stage by stage, once you have carried it out you will realise the simplicity of the operation and will be able to carry it out as and when required.

1.3 THIS PACKAGE INCLUDES.

1/ AZIMUTH 2000 HEAD ALIGNMENT TAPE/TEST GAME "CHOPPER SQUAD".
2/ INSTRUCTION MANUAL.
3/ SPECIAL SCREWDRIVER.
4/ POINTER.

2.1 WHAT IS THE AZIMUTH ANGLE ?

A tape head basically consists of two magnetic poles with a gap between them. The gap should ideally be perfectly perpendicular to the direction of tape travel. The difference between this gap and the perpendicular is called the Azimuth angle.

2.2 WHY SHOULD WE SET THIS ANGLE CORRECTLY

If a magnetic pulse on the tape goes past a perfectly aligned head, then the electrical signal received from the head is very clear to the computer and the program will load without error. If the head is slightly unadjusted (out of alignment), the signal received from the head is not clear and appears "smudged" over a longer time interval. The computer will be unsure as to when exactly the signal occured and so timing errors will be introduced. This can result in data being read incorrectly from the cassette (Loading errors). If the head is a long way out, pulses may appear "smudged" together and data will be lost (The program will never be recognized, the tape will appear blank but is not). Both these problems are more critical at a high speed rather than at low speed and a tape recorder that is perfectly alright loading programs at the normal Amstrad speed of 1000 baud (speed write 0) may have trouble coping with programs saved at 2000 baud (speed write)

2.3 WHY SHOULD I USE THIS TAPE ?

The Azimuth angle in fact varies by a small amount from tape to tape due to differences in cassette casing. This cassette is designed to be as accurate as possible in this respect and will be only slightly different from other good quality tapes.
It has been professionally recorded to the very highest standard. Imitations or copies will not give the same result.

2.4 THE AZIMUTH ALIGNMENT TAPE

This special tape has a standard baud rate loader, but its special feature is a counter 0-1000 written at 2000 baud rate, which is continued on the alignment side of the tape. On the reverse there is a game called "Chopper Squad" which will act as a test to see if you have carried out this simple adjustment correctly.

3.1 CLEANING HEAD PRIOR TO ADJUSTMENT

Before carrying out this adjustment, one should ensure the head is cleaned, this is best done with the use of a cotton bud and Isopropyl Alcohol (availabe from any good chemist), this is best done with the tape recorders play button depressed, consequently revealing the tape head.

At this point identify the screw to be adjusted with the play button depressed, the adjusting screw on the head is aligned with the adjustment aperture in the casing.

3.2 LOADING THE AZIMUTH TAPE

WARNING

The screwdriver may only be inserted into the adjustment screw head with the cassette deck in the play position.

Load the Azimuth tape by pressing and holding down the CTRL key and then pressing the small ENTER key, then follow the instructions displayed on the screen, the tape will now load. Ensure that the sound is turned up when the counter appears to start counting, insert the special screwdriver, with pointer mounted as per diagram into the adjustment hole and gently turn it clockwise until you hear a bleep from the computer, at this point turn the screwdriver slowly anti-clockwise to stop the bleeping and the counter should start counting up to 1000, should it stop/start turn screwdriver slightly more anti-clockwise until it counts up to 1000. Once this is achieved, note the point at which it happened. It is suggested that you use a match stick as per example.

3.3 NEXT STAGE

To start the counter again press "space bar" then carry out the same procedure turning the screwdriver slowly anti-clockwise to obtain a bleeping sound. Then bring it back clockwise to obtain the counter reading up to 1000 and make note again using a match stick etc.

3.4 FINAL SETTING

The screwdriver should have stayed inserted throughout this operation, you will now note the angle between the markers. To obtain the optimum setting you need to halve the angle between the markers. (note the angle is over 360°) therefore turn the screwdriver clockwise until the back of the pointer is in the centre of the two markers this will ensure the head is ideally aligned.

NOTE that the angle is the turning distance between the two extremes when the counter was reading to 1000, and this could be more than 360°.

3.5 TEST

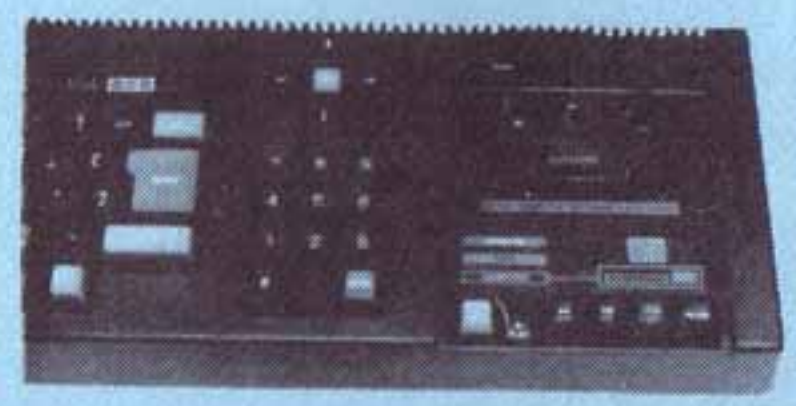
Turn over the tape and load the test game, "Chopper Squad" this in fact is a game recorded at 2000 baud so if this program loads you should not have any problems with other fast loading programs. Load CHOPPER SQUAD by pressing and holding the CTRL key and then pressing the small ENTER key then follow the instructions displayed on the screen.

3.6 CASSETTE CARE

Having now carried out this adjustment you will appreciate the tolerance of the alignement and you will treasure this tape for future use to minimise the frustration of the past. Keep your Azimuth cassette stored in its box at all times and do not expose it to extremely high or low Temperatures. Do not store it in a dusty enviroment.

YOUR STEP BY STEP GUIDE

THIS IS AN AMSTRAD CASSETTE DECK



THIS IS THE HOLE FOR THE AZIMUTH ADJUSTMENT.

AMSTRAD HOUSING

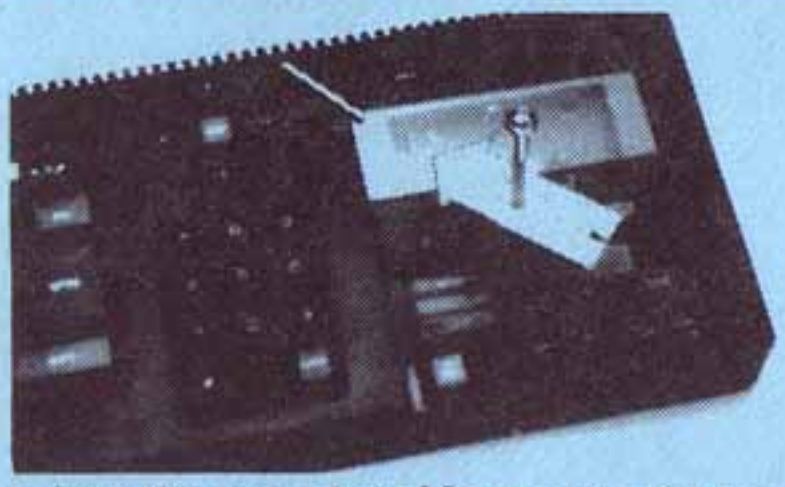
ADJUSTMENT SCREW

POSITIVE DRIVE (PHILIPS) TYPE

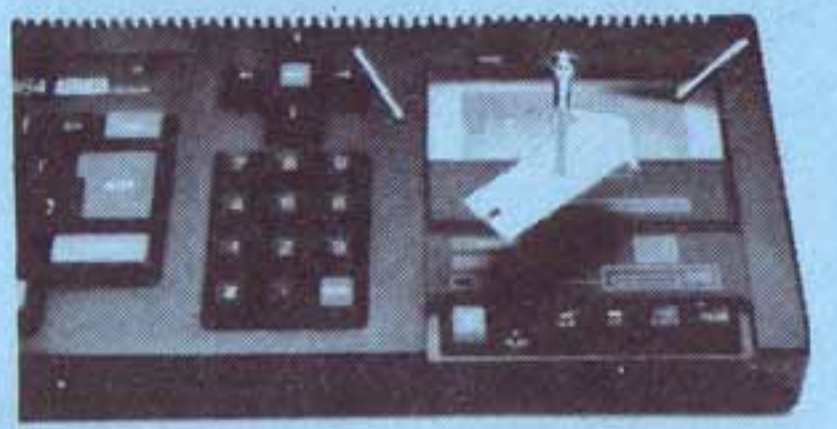
SETTING YOUR AZIMUTH

1 Insert the screwdriver into the adjustment hole as shown with the cassette deck in the play position, making sure that the screwdriver sits firmly into the screw head.

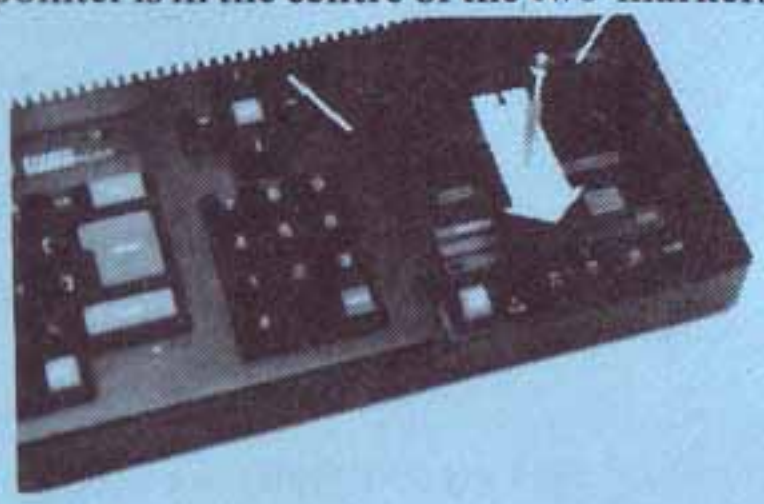
2 First rotate the screwdriver clockwise until the counter reset chimes. Then gently turn the screw anticlockwise until the counter goes up to 1000 without reseting. This is one of the extremes within the tolerance. Mark this position with a match stick as shown. Do not remove the screwdriver and keep the pointer facing this position.



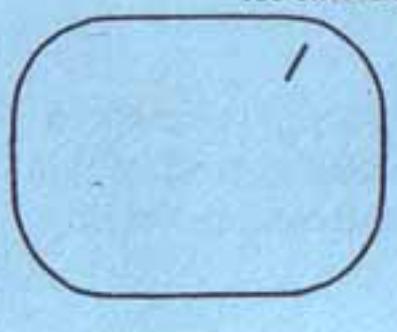
3 To start the counter press the space bar. Now rotate the screwdriver anti-clockwise until the counter chimes, then gently clockwise until the counter goes up to 1000 without reseting. You now have the other extreme, now mark the position with another matchstick.



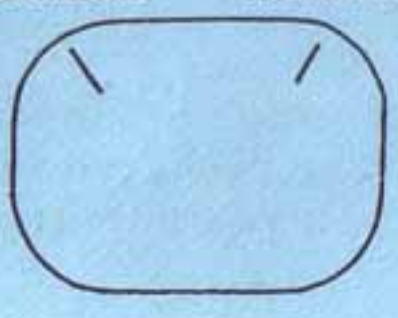
4. Now divide the angle between the two extremes by turning the screwdriver clockwise until the final setting pointer is in the centre of the two markers.



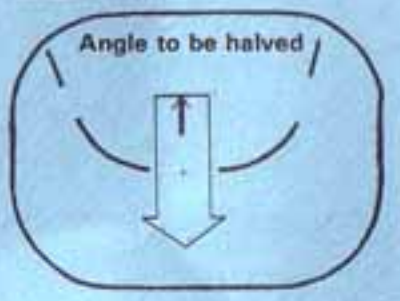
First Angle



Second Angle



Now halve the angle



THE ANGLE TO BE HALVED CAN BE MORE THAN 360°

NOTE: These diagrams are only for guidance as the actual angles will vary from cassette deck to cassette deck and of course the position of the screwdriver pointer at the start of the operation, however it is important you halve the two extremes in the right direction when turning the screwdriver pointer for the final optimum setting.

Now if the sequence has been carried out correctly your head should be aligned to the accuracy of 2000 baud which should handle all commercially available cassette programs.

To check this you should flip the cassette over and load the 'B' side; which is a free test game recorded at 2000 baud. If you experience loading problems you should clean the tape heads or carry out the alignment process again in case of an error on your first attempt.

CHOPPER SQUAD

LOADING
Press CTRL and small ENTER.
THE SCENE
The year is 1994. The world has been taken over by the 'orrible aliens. Only one small part remains unconquered-England! You play the role of Macho, an ace rocket heli-copter pilot. Your task? To assemble the parts of your nine fighter planes, the only hope earth has left.....

PLAYING
On the screen there are three heli-copter landing pads. Parts for the planes come down from the top. You have to get a part, and take it to the bottom right corner, flying from the left. Trying to defeat you are the 'orrible aliens in their craft. Luckily you have equiped a photon proton lazer blazer, with rapid repeat fire. The build status of your current plane is at the top of the screen. Once you have assembled one plane, you must try and assemble the next. But there is a problem! The aliens get quicker and start homing in on you, until they.....!

KEYS
Joystick compatible or "**Q**" helicopter lift, "**P**" right, "**O**" left, "**space bar**" fire.

Warranty
If you damage your screwdriver then a good hardware shop or specialist tool centre should be able to supply you with another. If you have any difficulty in obtaining a replacement then contact Interceptor Software at the address on the packaging.

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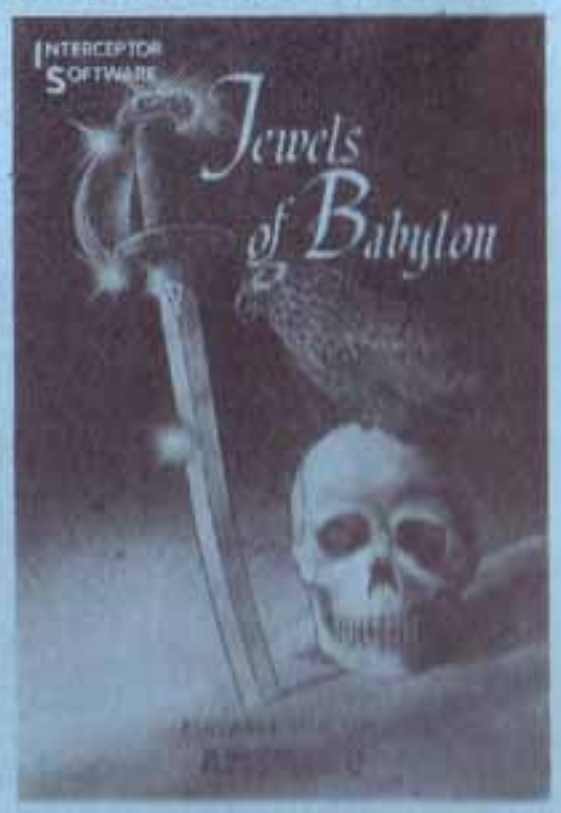
GRAPHICAL ADVENTURES



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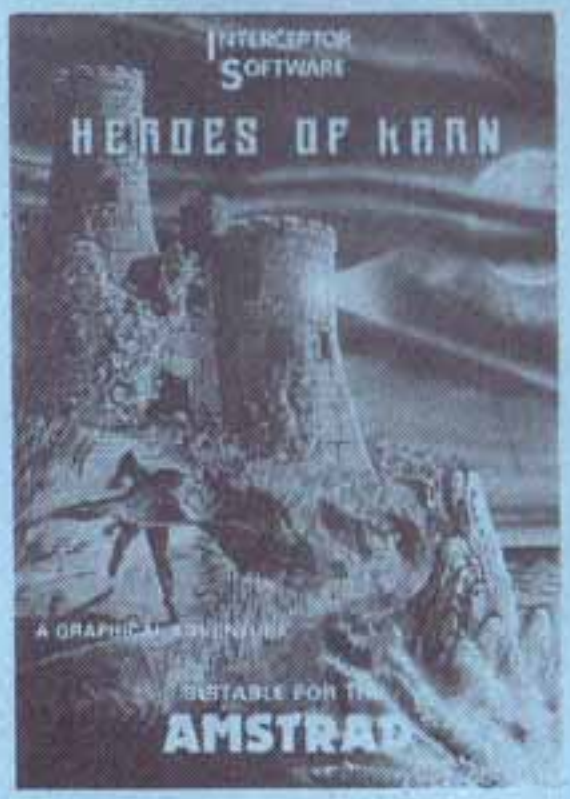

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