ACORN
ATOM

SOFTWARE

PLAYER1 ⚊ HIGH SCORE ⚊ PLAYER2
230 4540 20

BUG-BYTE

LOADING INSTRUCTIONS

The following software all comes supplied on high quality C12 microprocessor cassettes, complete with index cards and library cases. The programs are recorded under filenames which are the titles given on the library card. You will find that some of the programs have separate instructions in an extra program, located immediately before the main program. The filenames of these will appear when you try to LOAD the main program, or can be foud with the *CAT command.

To LOAD a program, simply type, for example :-

LOAD"BREAKOUT"

-and follow the computer's prompts. If the program fails to load first time, use the string of "X"s - which you will find recorded at the end of the tape - to optimise the volume and tone settings of your recorder. (See page 8 of the Atom manual). You should find that the "X"s will reproduce well over quite a wide range of volume settings, not all of which will necessarily lead to correct LOADing, but if you make minor adjustments within this range until the program will *CAT correctly, subsequent LOADing should be fault free.

COPYRIGHT NOTICE

THE ATOM

"THE ATOM" is the magazine devoted exclusively to users of the Acorn Atom. Initially published every two months (more often if demand proves sufficiently high), "THE ATOM" consists of programs, articles, hints & tips, letters, surveys, etc. All aspects of Atom programming are covered. In addition, subscribers to "THE ATOM" are entitled to a 10% discount on our software, so you can rapidly recover the low cost of subscription. See the order form for the cost of a year's subscription (at least 6 issues). If you would prefer to see a sample copy first, issue 1 (which includes a listing of our MINI-BREAKOUT program!) may be obtained by sending us a cheque/P.O. for 75p (inc. P&P), while stocks last.

2K PROGRAMS (1)   (2K, BASIC)

Four compact and entertaining programs for
the man with minimum configuration

1) MOON-LANDING
Can you land your craft safely on its
landing pad, or will you run out of   fuel
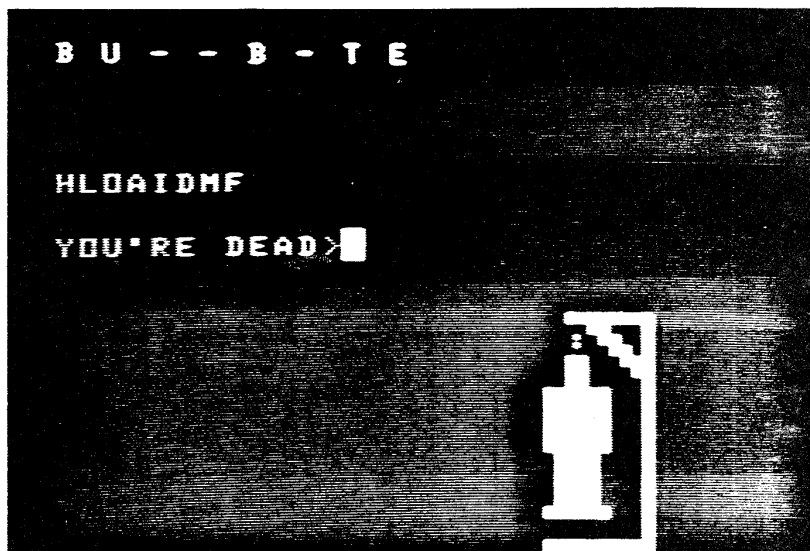and crash into the lunar surface?
2) HANGMAN
Two player game with graphics
3) REACTION-TEST
Tests your ability to react between two
set time limits. Very tricky - but it is
possible!
4) TORPEDO
Shoot torpedos at the ships sailing across
the horizon. Your rating is displayed on
the screen.

2K programs (2)   (2K,BASIC & m.c., sound)

More wonders of miniaturisation.

1) CALENDAR
Now you need never buy a calendar again!
Type in   the month and year and the
program produces the relevant calendar.
Accurate back to whenever Pope Gregory
messed things up and forward until someone
else does likewise.

2) LIFE
The classic computer simulation of the
growth of a colony of cells. The
constantly changing patterns produced are
fascinating to watch. Written
substantially in machine code for
compactness and speed. Full cursor control
for input of starting pattern. Display of
current and last generations, on 27 x 27
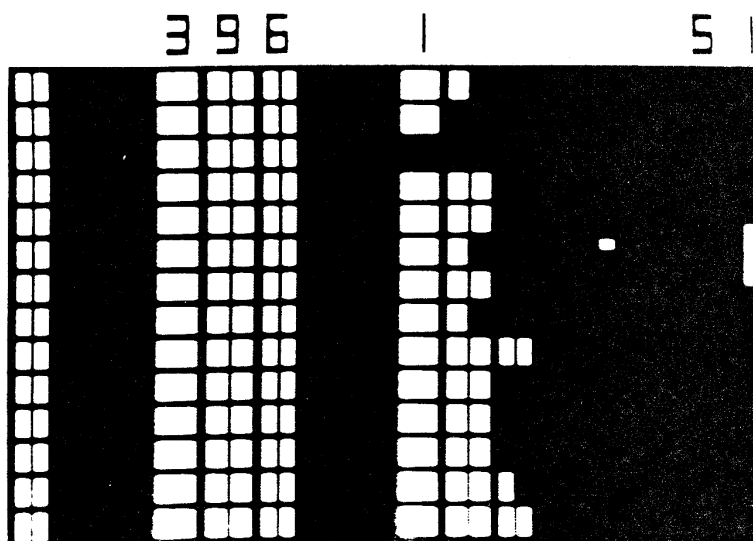grids, and number of elapsed generations.

3) O'S AND X'S
Challenge your Atom to a game of O's and
X's. It can be beaten, but it'll keep you
on your toes!

4) TUNES
Converts your Atom into a musical box. Any
tune can be entered (very long ones will
require memory expansion) and replayed at
virtually any speed. Comes complete with
three sample tunes.
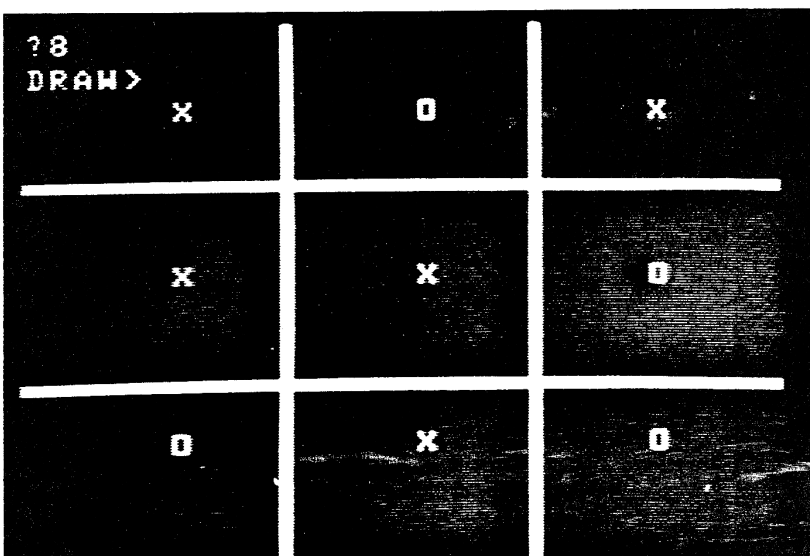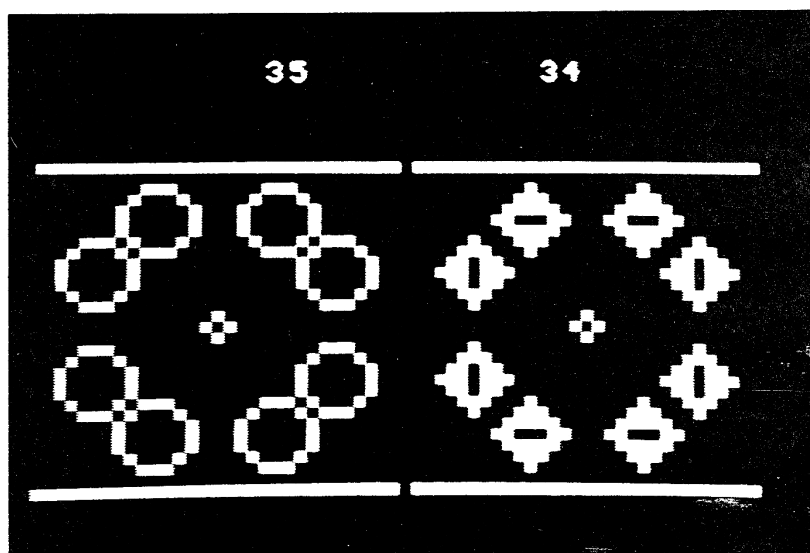
ATOM BREAKOUT (4K, m.c, Gr.Mod1, sound)

Fast-moving, highly addictive version of the popular arcade game. With high score, free ball for 500 points, ever advancing walls and sound output.

The aim of the game is to remove as many bricks as possible by hitting them with the bouncing ball. The "curved" edges of your bat will change the ball angle, making the game more challenging. The larger bricks score more points, but return the ball faster, so beware!

Nine different skill levels are provided, from ridiculously easy to mind-blowingly impossible.

PINBALL (6K, m.c, Gr.Mod2, sound)

A computer simulation of a pinball table which is packed with features - opening and closing gates; tuneful, flashing bumpers; simulated gravity and a central trap.

You have two bats in place of the more normal flippers, and five balls per game in which to attempt to beat the high score. A free ball can be won by lighting the eight letters and then getting the ball through the free ball gate.

The program has both one and two player versions of the game.

FRUIT MACHINE (8K, BASIC & m.c, Gr.Mod2, sound)

Another full-featured simulation, this time of a fruit machine, complete with HOLD and NUDGE facilities and spinning reels, with ten different symbols in a fixed order.

The program is written largely in BASIC, but with extensive machine code routines to produce fast-spinning reels and sound output.

Just as entertaining as a real fruit machine, but far cheaper in the long run.

ATOM INVADERS (12K, m.c, Gr.Mod4, sound)

Fast-moving, machine code version of the ever popular arcade game, which makes full use of the Atom's high resolution graphics.

All the expected features - one and two player versions, 3 different invader types in 11 x 5 formation, spinning flying saucer, single and double speed bombs, extra base for 1500 points, sound output, high score, etc.

Probably the best version of the program available for the Atom, or any microcomputer. Compare the photograph and list of features with others available.
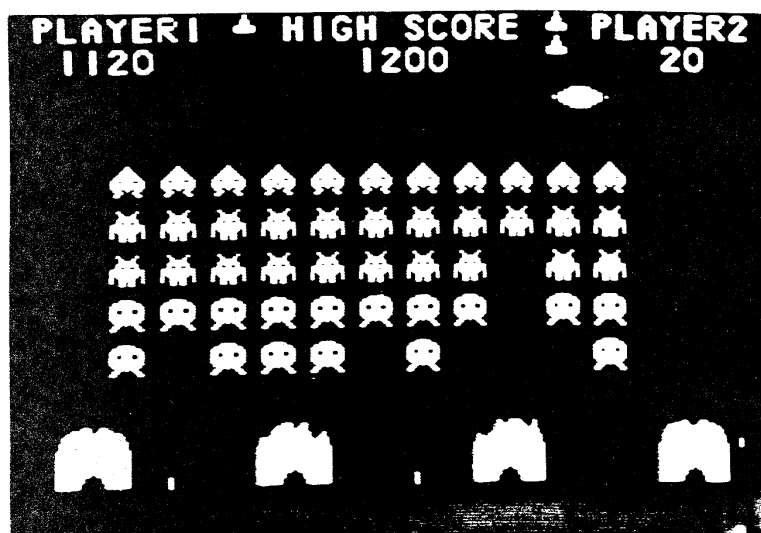
STAR TREK (12K, BASIC & m.c, sound)

Go where no Atom owner has gone before, trekking across the galaxy, leaving a trail of zapped Klingons in your wake.

The program is a real time version, so if you delay too long in making command decisions, you'll probably live to regret it - if you survive, that is !

8 x 8 Galaxy, with 64 sectors in each quadrant. You have long range and short range scanners to search out Klingons, and Starbases to refuel at, a galaxy map to help you keep track of them and phasers and photon torpedos in your armoury.
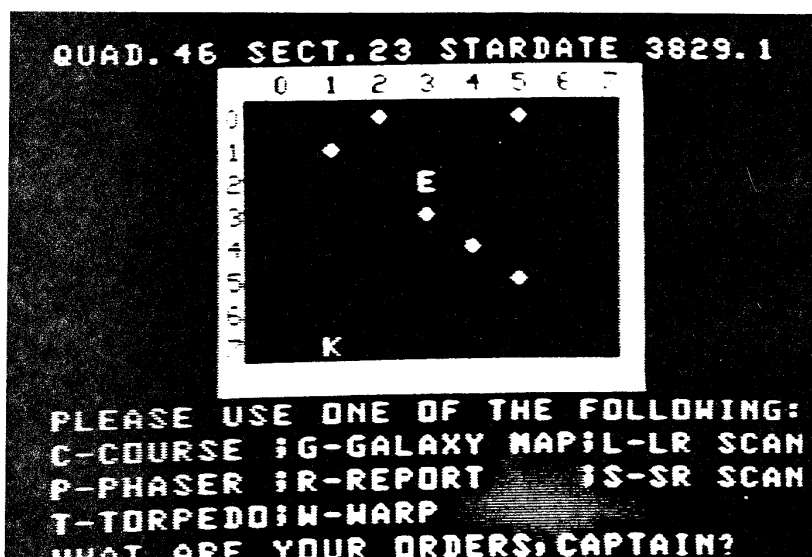
REQUIRES THE FLOATING POINT ROM

UFO BOMBER (7K, BASIC, sound)

Your space ship is flying above the relentlessly advancing fleet of aliens. You have to stop them, by dropping bombs, before they reach and destroy you. At the same time, your task is complicated by the presence of asteroids, which must be avoided. The ufos advance at an ever increasing rate and, after a while they are joined by the dreaded super aliens with their deadly plasmon rays!

Tremendous sound effects, high score and comments on your performance.

110
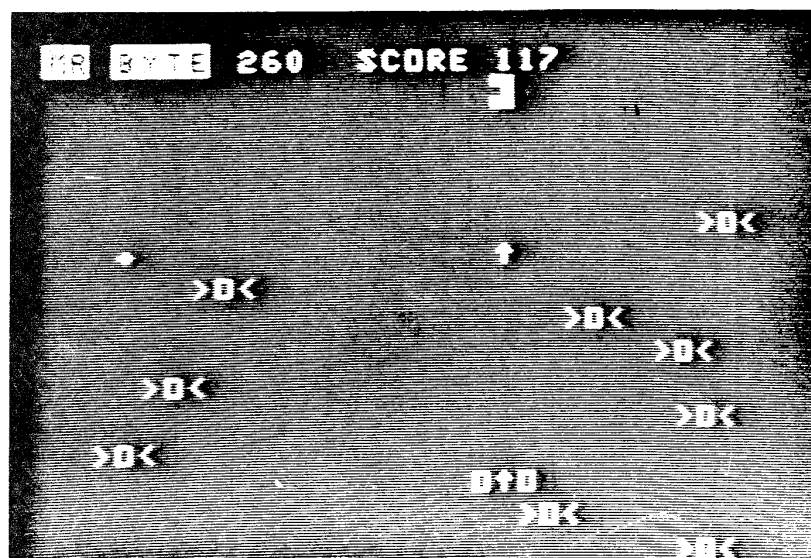
430
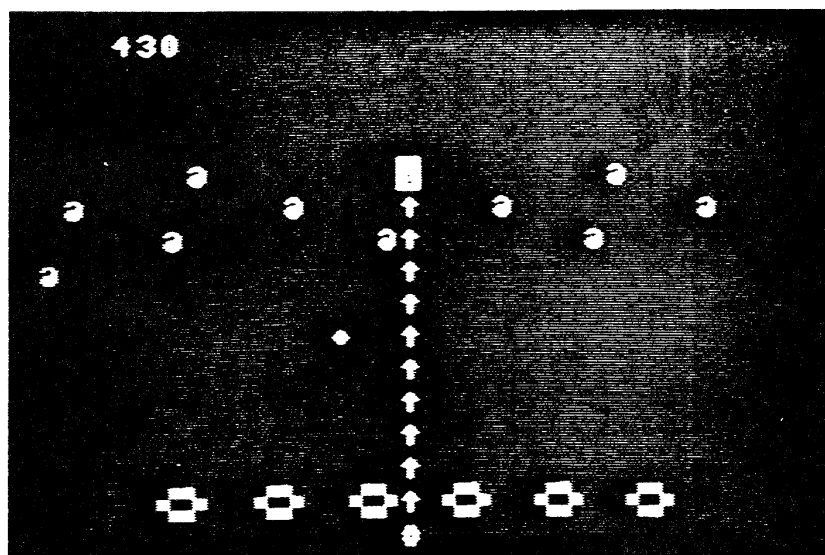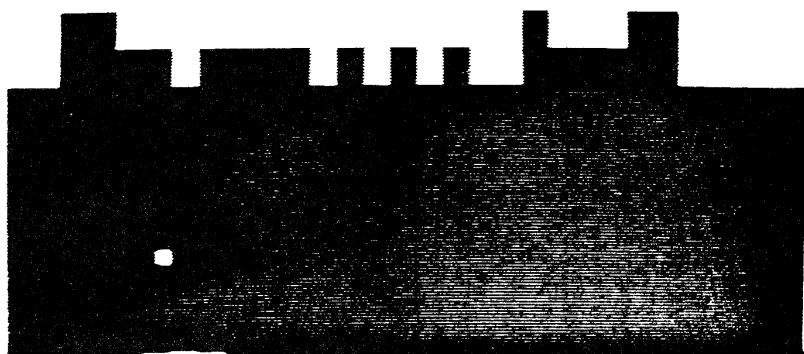
2K programs (3) (2K,BASIC & m.c., sound)

Two enormous achievements in the very cramped memory space of the minimal Atom.

1) MINI-BREAKOUT

A largely machine code program, which compares favourably with some of the much longer versions of the program we have seen. You get three attempts at demolishing the wall.If you succeed in this, (not an easy feat!) the wall resets and you are rewarded with another three balls.
There are several ball angles and these change whenever the ball hits the edge of your bat. Three skill levels.

2) ATOM INVASION

Written entirely in BASIC, but a model of compactness and speedy execution. You have to eliminate the invader fleet before they land. Shields are provided to help you avoid their bombs. If you succeed, a second wave will appear and set about you even more ferociously. The program keeps a record of the top score. There is a wide range of skill levels, to suit players of all abilities

```
2C86  JSR  2D1B              20  1B 2D
2C89  LDA  8E                    A5 8E
2C8B  BNE  EC  (TO  2C79)        D0 EC
2C8D  LDA(82),Y                  B1 82
2C8F  ORA  86                    05 86
2C91  STA(82),Y                  91 82
2C93  RTS                        60
2C94  DEC  89                    C6 89
2C96  BNE  E1  (TO  2C79)        D0 E1
2C98  LDA  87                    A5 87
2C9A  STA  89                    85 89
2C9C  LDX  8B                    A6 8B
2C9E  CPX  @ 02                  E0 02
2CA0  BEQ  05  (TO  2CA7)        F0 05
2CA2  CPX  @ 00                  E0 00
2CA4  BEQ  3A  (TO  2CE0)        F0 3A
```

DISASSEMBLER (4K,BASIC)

Unlocks the secrets of the Atom ROMs (or any machine code program) by converting the machine code back into assembler mnemonics.
The program occupies 2K of program space, and can be loaded into any convenient 2K block of memory. The listings can be sent to a printer, if you have one, or alternatively, displayed a screenful at a time.
An invaluable aid for any machine code enthusiast, or for anyone wanting to learn by example. You'll wonder how you ever survived without it!

BIO-RHYTHMS (4K,BASIC)

Takes your date of birth and the present
date and plots the current state of your
physical, emotional and mental cycles.
Whether or not you believe in the value of
these for predicting your state of mind,
it's good fun to find out how you and your
friends are supposed to be feeling on
particular days. You could also try it out
for famous people on famous dates.
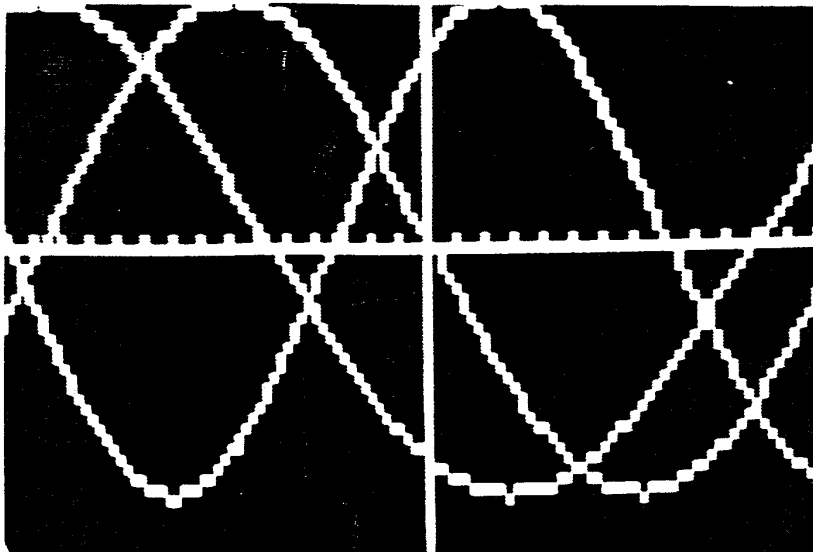
PONTOON (4K,BASIC)

The computer generously gives you some
money to play with and then proceeds to
take it off you again by beating you at
pontoon. The computer deals the cards,
offers you the options of sticking,
twisting, or buying (where relevant),
signals pontoons and five card tricks
.... and inevitably wins in the long
run.

YOU HAVE:
JACK OF DIAMONDS
EIGHT OF CLUBS

DO YOU WANT TO STICK OR TWIST?S

I HAVE:
THREE OF HEARTS
KING OF DIAMONDS
NINE OF DIAMONDS

I'M BUST
YOU WIN $4

BATTLESHIPS (4K,BASIC)

The standard grid game, with battleships
and destroyers, played against the
computer. You and the computer take turns
to shoot at the various squares on the
other's grid, somewhere on which two
battleships and three destroyers are
hiding. The more ships you have left
intact, the more shots you get each turn,
until eventually one of the fleets is
wiped out
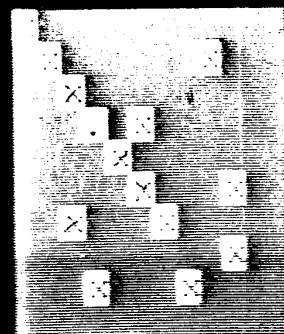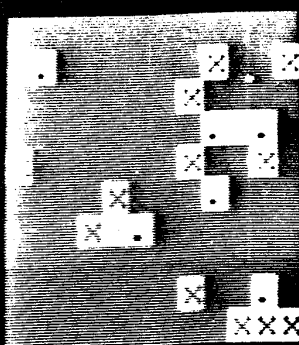
CHOOSE THE POSITIONS OF YOUR
6 SHOTS BY MOVING THE
CURSOR AND TYPING CHARACTERS IN
THE REQUIRED POSITIONS ON THE
RIGHT SQUARE?

SOFTWARE CONTRIBUTIONS

We are always interested in receiving high quality, original software from individuals, with a view to marketing any programs of the required standard, generous royalties being paid to their authors.

Software should be as free from bugs as possible, so before sending your programs in, test them out on your friends to make sure that they are foolproof. While you are at it, ask them whether they would pay £4.00 or more for them. We can help you by making minor changes to bring a program up to the required standard, but the less work that needs doing on it, the more likely it is that we will accept the program.

Programs should be easy to use, with clear and full instructions. Any information, whether text or graphics, should be attractively laid out on the screen. Efficient use should be made of memory space.

Although we are interested in programs on a wide variety of subjects, we are particularly interested in the following :-

    a) Machine code programs.
    b) Games making good use of high graphics modes.
    c) Educational programs.
    d) Personal/home finance programs.
    e) Business/accounts programs.
    f) Utilities/programming aids.
    g) Anything very original or unusual.

Please do not send in programs which we already have versions of. Send your program(s) to us recorded on a cassette, which will be returned together with our decision on the program. Also send any (preferably brief) explanatory notes you consider necessary. If we find your software suitable for inclusion in our range, we will send you an agreement to sign, entitling you to a royalty of 20% of the selling price, on every copy sold. We will not, of course, market or advertise any program sent to us until this agreement has been signed and returned. If your program is unsuitable, it will be returned with a brief explanation and possibly suggestions for improvement.

Don't forget, the better your program, the better it will sell and the more you will get out of it. Just write the program and we will take care of the rest - we advertise widely in the popular computing magazines ensuring that your software reaches as wide a market as possible.

N.B. IT IS YOUR RESPONSIBILITY TO ENSURE THAT ALL SOFTWARE YOU SEND IN IS YOUR OWN ORIGINAL WORK.

2114 CHIPS

Low cost 1K x 4 bit 2114 static RAM chips, suitable for use with the Atom (2 x 2114's are needed to expand the Atom's memory by 1K). As a special inducement, anyone ordering twenty 2114 chips (sufficient to fully expand a minimal Atom) will receive a free copy of our 12K ATOM INVADERS program!

DISCOUNT

Quantity discounts are available as follows, on any mixture of cassettes :-
10-50, 10%; 50-100, 20%; 100-150, 35%; 150-250 50%; over 250 cassettes, 60%
N.B. These discounts can not be used together with the 10% discount for subscribers to "THE ATOM".

NEW RELEASES:

LABYRINTH (12K, F.P., BASIC, Gr.Mod2A, sound)

High-resolution colour graphics (also effective
in Black & White) make this 3D maze program one
of the best versions available. To help you find
your way through the bewildering array of
corridoors of the 30x15 cell random maze, you can
call up a 2D-map of the maze. In the harder game
option, this map shows only the portions of the
maze which you have explored.

Your task is to find your way to the treasure
room at the centre of the maze and then escape
through the exit. To make things more difficult,
several monsters (including the dreaded Minotaur)
are loose in the maze, and you will have to fight
your way past them. The types of monsters
present, and their weapons can be altered by the
user, if required.

REQUIRES THE FLOATING POINT ROM

LUNAR LANDER (12K, BASIC & m.c, Gr. Mod4)

A highly addictive, arcade style program. A
rugged lunar landscape is drawn out and you have
to attempt to land your craft safely on the flat
areas, by varying the thrust of your main &
steering rockets. If you succeed, the ship takes
off, and you have to try to land it again, under
slightly more difficult conditions. This
continues, until you have reduced 3 ships to
heaps of rubble.

On screen readout of fuel and score. Several
skill levels. A record is kept of the high score.
If you are a sufficiently expert pilot, you will
be rewarded with extra ships. Definately a cut
above the average lunar lander!!

GOLF (6K, F.P., BASIC)

An 18 hole, par 72 course, complete with
fairways, rough, bunkers, trees, streams &
greens. Skill and careful club selection are
required to get round with a good score. To make
things more difficult, you have to specify a
fault in your game, which the program will
reproduce, and your handicap. At the end of the
round, the program produces your scorecard for
the round.

A highly entertaining program, which is likely to
have you up late into the night straining for a
par!

REQUIRES THE FLOATING POINT ROM

✳ BACKGAMMON (7k, basic)

The program draws out a representation of a
backgammon board and allows you to play the
standard game against the computer. Playing
instructions are not included, but if you can't
already play the game, there are several books
available to teach you, and the Atom makes an
ideal, ever willing partner to build up your
playing strength against.

Computer responses are rapid (approximately 10
seconds) and the program will not accept illegal
moves. Dice throwing is controlled by the
computer.

LAST RUN (7K, BASIC, sound)

You are in a maze system, full of constantly
changing traps and exploding bombs. Your task is
to run around collecting points by reaching the
target squares - but beware, they have a nasty
habit of avoiding you or changing into traps. You
get three runs through the maze (more if you are
sufficiently successful) in which to gain
sufficient points to beat the high score. Not for
the nervous!

RHINO & WIGGLE (10K, F.P.,BASIC, sound)

Two programs on one cassette. Rhino puts you in
the uncomfortable position of trying to cross a
field with a slightly stupid, but very annoyed
rhino in it. Your only chance is to lose him
amongst the trees. If you succeed, the next field
has 2 rhinos in it. By the time you've got half a
dozen in there with you, things are getting
rather tricky!

Wiggle is in graphics mode 4A(in colour if you
have a colour encoder) and involves guiding a
snake through the gaps in a set of parallel
walls. If you succeed, the next set are more
closely spaced. Simple, compulsive, and very,
very frustrating!

REQUIRES THE FLOATING POINT ROM

✳ sold in aid of leukaemia research and
treatment (50% of the selling price will be
donated).

PRICE LIST KBYTE ORDER FORM
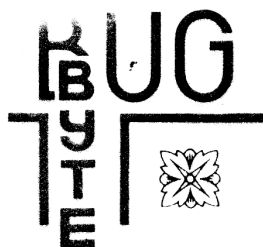
4K ROM ZX80

BUMPAPAK	ZOBP	£12.00	[ ]
PROGRAMMING COURSE	ZOPC	£6.50	[ ]
FRENCH VOCAB	ZOFR	£5.00	[ ]
MULTIPLE CHOICE	ZOMC	£5.00	[ ]
JUNIOR MATHS	ZOJM	£5.00	[ ]
BREAKOUT	ZOBR	£4.00	[ ]
DIGITAL CLOCK	ZODC	£3.00	[ ]
CASSETTE NO.9	ZO09	£3.00	[ ]
CASSETTE NO.10	ZO10	£3.00	[ ]
TABLES TESTER	ZOTT	£3.00	[ ]

8K ROM ZX80

PROGRAM PACK 1	Z8P1	£3.50	[ ]
ASSEMBLER	Z8AS	£4.00	[ ]
DISASSEMBLER/ DEBUGGING PROGRAM	ZXDB	£5.95	[ ]

ZX81

PROGRAM PACK 1	Z1P1	£3.50	[ ]
PROGRAM PACK 2	Z1P2	£3.50	[ ]
ASSEMBLER	Z1AS	£4.00	[ ]
MULTIFILE	Z1MU	£17.50	[ ]
DOCUMENTATION ONLY	Z1MD	£1.00	[ ]
DISASSEMBLER/ DEBUGGING PROGRAM	ZXDB	£5.95	[ ]

ACORN ATOM

ATOM INVADERS	AINV	£8.00	[ ]
PINBALL	APIN	£4.50	[ ]
ATOM BREAKOUT	ABRE	£4.00	[ ]
FRUIT MACHINE	AFRU	£4.00	[ ]
UFO BOMBER	AUFO	£4.00	[ ]
STAR TREK	ATRE	£5.00	[ ]
DISASSEMBLER	ADIS	£4.00	[ ]
LABYRINTH	ALAB	£6.95	[ ]
LUNAR LANDER	ALUN	£5.50	[ ]
GOLF	AGOL	£5.00	[ ]
LAST RUN	ALAS	£3.00	[ ]
2k PROGRAMS (1)	A2K1	£4.50	[ ]
2K PROGRAMS (2)	A2K2	£4.50	[ ]
2K PROGRAMS (3)	A2K3	£4.50	[ ]
PONTOON	Apon	£3.00	[ ]
BATTLESHIPS	ABAT	£3.00	[ ]
BIO-RHYTHMS	ABIO	£3.00	[ ]
WIGGLE + RHINO	AWIG	£5.00	
SUBSCRIPTION TO "THE ATOM"	ASUB	£3.95	[ ]
BACKGAMMON	ABAC	£7.00	[ ]
MEMORY CHIPS	2114	£2.25	[ ]
BLANK C12 CASSETTE	CC12	£0.70	[ ]

SHARP PC1211

FRENCH VOCAB	PCFR	£3.00	[ ]
BANK ACCOUNT	PCBA	£2.50	[ ]

TOTAL	£
DISCOUNT (SEE OVER)	£
AMOUNT ENCLOSED	£
ATOM SUBSCRIPTION NO. (IF APPLICABLE)	-------

NAME _____

ADDRESS _____

_____ **P'CODE** _____

TOTAL _____

BUG-BYTE SOFTWARE

ORDERING INFORMATION

Please use the order form on the reverse when ordering, or a photocopy of it. A new form will be sent with your order. Indicate which item(s) you require by ticking the appropriate box(es). If you are ordering more than one of a particular item, write the number required in the box. Please print your name and address clearly, and include your postcode. Enter the total amount enclosed at the bottom.

Payment should be by cheque (made payable to Bug-Byte) or postal order. ALL PRICES GIVEN ARE INCLUSIVE IN THE UK. Overseas orders should add 10% to cover the extra postage. Delivery to UK addresses is normally within 14 days.

DISCOUNTS
Details of quantity discounts, where applicable, are given in our catalogues. Enter the discount in the space provided. Subscribers to "THE ATOM" magazine are entitled to a 10% discount on Acorn Atom software - if you are claiming this discount, please enter your subscription number in the space provided on the order form. If you are ordering your subscription at the same time, you may still claim the discount.