

+80 STOCK MANAGER

INVOICES — STOCK CONTROL — PRICE LISTS — 600 PRODUCT LINES — FOR
48K ZX SPECTRUM™ PLUS 80 COLUMN PRINTOUT CAPABILITY

AJAX COMPUTERS
47 Red Lion Street
Aylesborough
West Sussex AY4 3QR
Phone: 123-456-7890

DATE 26 April 1984

PRICE LIST (INC VAT)

NO	GOODS	ITEM PRICE
1	ZX SPECTRUM	114.99
2	LEARN BASIC	8.91
3	Z80 ASSEMBLER	13.28
4	MASTERING MACHINE	8.63
5	FINANCE MANAGER	22.94
6	DATABASE	26.35
7	GRAPHIC GENERATOR	42.98
8	CENTRONICS INTERFACE	4.55
9	UNDERSTANDING BASIC	17.50
10	ROM DISASSEMBLER	23.31
11	TTL DATA BOOK	18.50
12	EPSON FX80 PRINTER	200.00
13	BENJUS THE DOG	5.90
14	STAR WARS	19.95
15	STAR WARS	19.95
16	STAR WARS	19.95
17	STAR WARS	19.95
18	STAR WARS	19.95
19	STAR WARS	19.95
20	STAR WARS	19.95

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INVOICE 1234

NO	GOODS	QUANTITY	ITEM PRICE
1	ZX SPECTRUM	1	114.99
2	LEARN BASIC	25	8.91
3	Z80 ASSEMBLER PROGRAMMING	5	13.28
4	MASTERING MACHINE CODE	4	8.63
5	FINANCE MANAGER	1	22.94
6	DATABASE	25	26.35
7	GRAPHIC GENERATOR	25	42.98
8	CENTRONICS INTERFACE	25	4.55
9	UNDERSTANDING BASIC	25	17.50
10	ROM DISASSEMBLER	25	23.31
11	TTL DATA BOOK	25	18.50
12	EPSON FX80 PRINTER	25	200.00
13	BENJUS THE DOG	25	5.90
14	STAR WARS	25	19.95
15	STAR WARS	25	19.95
16	STAR WARS	25	19.95
17	STAR WARS	25	19.95
18	STAR WARS	25	19.95
19	STAR WARS	25	19.95
20	STAR WARS	25	19.95

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STOCK STATUS

NO	GOODS	MIN. STOCK
1	ZX SPECTRUM	100
2	LEARN BASIC	50
3	Z80 ASSEMBLER PROGRAMMING	20
4	MASTERING MACHINE CODE	10
5	FINANCE MANAGER	5
6	DATABASE	50
7	GRAPHIC GENERATOR	50
8	CENTRONICS INTERFACE	1000
9	UNDERSTANDING BASIC	40
10	ROM DISASSEMBLER	45
11	TTL DATA BOOK	75
12	EPSON FX80 PRINTER	100
13	BENJUS THE DOG	75
14	STAR WARS	10
15	STAR WARS	10
16	STAR WARS	10
17	STAR WARS	10
18	STAR WARS	10
19	STAR WARS	10
20	STAR WARS	10

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DATE 26 APRIL 1984

STOCK INCREASE

NO	GOODS	QUANTITY
1	ZX SPECTRUM	200
2	LEARN BASIC	300
3	Z80 ASSEMBLER PROGRAMMING	50
4	MASTERING MACHINE CODE	60
5	FINANCE MANAGER	1250
6	DATABASE	800
7	GRAPHIC GENERATOR	20
8	CENTRONICS INTERFACE	175
9	UNDERSTANDING BASIC	100
10	ROM DISASSEMBLER	65
11	TTL DATA BOOK	43
12	EPSON FX80 PRINTER	610
13	BENJUS THE DOG	561
14	STAR WARS	150
15	STAR WARS	150
16	STAR WARS	150
17	STAR WARS	150
18	STAR WARS	150
19	STAR WARS	150
20	STAR WARS	150

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zx
Microdrives

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INSTRUCTIONS FOR

STOCK MANAGER

**A Comprehensive Stock Control & Invoicing Program
for the 48K ZX Spectrum™**

© Oxford Computer Publishing Ltd. 1984
4 High Street, Chalfont St. Peter, Bucks., England

Program written by PALLE NORMAN

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1. INTRODUCTION

Welcome to STOCK MANAGER, and thank you for selecting this OCP program to meet your business needs. STOCK MANAGER has been written specifically for the Sinclair 48K ZX Spectrum microcomputer, and provides the user with all of the basic facilities necessary for a controlled Stock Accounting and Invoicing environment. STOCK MANAGER is easy to learn and simple to use, and will greatly assist the user in the day to day running of his sales activities.

This accompanying Instruction Booklet has been written to provide a logical guide through the various facilities of STOCK MANAGER. It is recommended that the user reads through Sections 1-3 prior to use of the program, and then studies Sections 4 onwards whilst working at the computer. Users who wish to read through the entire Instruction Booklet before using the program may do so, but they will not gain the learning re-inforcement that comes from practical use of the program.

2. OVERVIEW OF STOCK MANAGER

STOCK MANAGER is a single computer/user "interactive" program designed to provide a controlled Invoicing and Stock Accounting environment. STOCK MANAGER can accommodate up to 600 different product lines in the 48K Spectrum, and this makes it ideally suited to the small commercial business or private enterprise.

Central to STOCK MANAGER is the Stock "Master File" containing, for each product, details of its Product Code, Description, Unit Price, Minimum Stock Level, Stock Quantity, and a VAT indicator showing whether or not VAT is applicable to that product. Whenever sales (issues) are made, Invoices are prepared and the stock levels are adjusted on the Stock Master File to reflect these issues.

Reports can be printed, whenever required by the user, to give the current stock status, Price List information, and details of any products that need to be re-ordered; ie where the current stock level has fallen below the Minimum Stock Level for that product.

Adjustments to the Stock Master File may be made independently of any Invoicing run using user-selectable options within STOCK MANAGER. In this way stock levels may be increased when new stock is received, or goods are returned. Similarly, stock levels may be decreased to allow for stock "shrinkage" that may result from breakages, spoilt goods, or for any other reason.

Provision is made to handle VAT, Postage & Packing, Discounts, and other "special" trading arrangements that may be operated. The extent to which "specials" can be handled by STOCK MANAGER

will be determined by the method in which the user applies a "general" option made available to him - see Section 9 "INVOICING".

At the end of each computer session with STOCK MANAGER the Stock Master File, together with the program itself, should be saved to preserve the changed stock position. Facilities exist to save these files either on cassette or on Microdrive. The saved media is then used to load the program and Master File at the start of the next session. In this way it is possible to run STOCK MANAGER as a Microdrive-based system after the initial use of the program cassette supplied.

STOCK MANAGER reports utilise a full 80 column width print-out and 32 or 64 column printers cannot, therefore, be used. A variety of "dot matrix" or similar type printers may be used, and the user is referred to Section 14 "PRINTER CONSIDERATIONS" for further information.

3. GETTING STARTED

It is assumed that the user will be familiar with the initial set-up and basic operating procedures for the Spectrum, Cassette Recorder, TV, and Printer. If this is not the case you should refer to Chapters 1 & 6 of the ZX Spectrum Introduction booklet, supplied with your computer at the time of purchase, before proceeding any further. You should also familiarise yourself with the Operation Manual for your particular printer, which will contain essential information on its preparation for use, selection and installation of paper/ribbon, printer "control codes", etc. Section 14 "PRINTER CONSIDERATIONS" of this booklet contains detailed information on printer "interfacing"; ie the hardware to permit correct computer/printer communication.

In addition to your hardware equipment you will also need some "operating supplies" for STOCK MANAGER. You will require some form of stationery for Invoices and system print-outs, and some blank cassettes/Microdrive cartridges for saving STOCK MANAGER files on from session to session.

The choice of stationery will depend on a number of factors; eg the size of your business and level of sales activity, the number of copies of each print-out that will be required, and the type of printer being used. Whereas plain, single-part, continuous fanfold stationery will normally suffice for system print-outs, the user may elect to use special pre-printed multi-part stationery for his Invoices. All stationery must be wide enough to accommodate the full 80 column print-outs, yet narrow enough to fit into your printer. An obvious observation, perhaps, but better to recognise this requirement now than after you have received your bulk supply of unusable paper!

STOCK MANAGER prints all of the necessary Invoice information, and therefore plain stationery could be used. Invoices can, however, be given a much more professional look by having the stationery overprinted with a feint coloured form layout as a background. The Invoice is the one part of your business that your customers will see, and the additional cost of pre-printed stationery may be considered a small premium to pay for enhancing the external image of your business. Your local supplier of forms and stationery will be pleased to give you advice and guidance as to the best type of paper for your particular needs.

After each session of using STOCK MANAGER it is necessary to save the program and Stock Master File. This may be either to cassette or Microdrive. If the cassette option is selected it will be necessary to have a minimum of two blank cassettes available. In view of the importance of the security of your STOCK MANAGER files, which you will have set up and maintained over a period of time, this is one area in which you should definitely not skimp. High quality Personal Computer cassettes are now available, at a slightly higher price than "budget" cassettes, and it is strongly recommended that these are used. If the Microdrive option is selected at least two blank cartridges will be required.

Additional cassettes or cartridges may be introduced into the save cycle if a greater depth of security is required. This system of file security is sometimes referred to as "grandfather", "father", and "son" file processing.

4. CUSTOMISING STOCK MANAGER

You are now ready for your first practical session with STOCK MANAGER. During this session you will be "customising" the system with information that is specific to your individual Company and use of STOCK MANAGER.

Begin by loading the program from the OCP supplied cassette. Type **LOAD** "", start your cassette recorder on PLAY, and then press **ENTER**. Program load time is just over 4 1/2 minutes, and during this initial load phase the OCP Title Screen will be displayed. STOCK MANAGER will run automatically once program loading has been completed, and the first system display will be the Welcome Screen. From now on you will be presented with a succession of "prompts", asking you for data or requesting you to make a choice between a number of alternative options displayed on the screen. Screen displays which list various user-selectable options are known as "menus".

In response to the prompt "FIRST NO. OF INVOICE", enter the number that you wish to appear on your first printed Invoice.

You will then be asked "ARE YOU SURE?", since once this entry has been accepted it cannot be changed. Successive Invoices are numbered sequentially from this initial value, and the last Invoice No. used in a given session is carried forward to, and incremented in, the next session. The initial Invoice No. must lie in the range 1-99999, and would normally be 1 unless STOCK MANAGER is being used to take over an existing manually run system. Press Y or N as appropriate.

The next display presented is the Date Screen. The displayed message "TAPE ; - READY" may be ignored at this stage, as may the "OLD DATE" which will have been picked up from the "master" program cassette. The significance of these fields will become evident later. In response to the "NEW DATE" message enter the date you wish to appear on the Invoices. The format of the date entry is flexible and may be 01/04/1984, 1 April 1984, or any form that you prefer. Errors may be back-spaced out by using the **CAPS SHIFT** & **DELETE** keys together. Press **ENTER** when you are ready to proceed. Even if you do make an error here, don't worry, you will have an opportunity to correct it before printing any Invoices.

Follow the prompts displayed on the screen which request input of "NAME OF YOUR COMPANY", "ADDRESS LINE's", and "PHONE". Press **ENTER** after each entry (field) is completed to advance to the next field, or to step over a non-applicable field. After the PHONE entry has been made you will be asked to confirm that the details entered are correct. Although the ADDRESS LINE's and PHONE entries may be changed later NAME OF YOUR COMPANY may not.

CAUTION: You should ensure that the NAME OF YOUR COMPANY entry is correct now, as once it has been accepted it becomes integrated into the system and is carried forward from run to run. It cannot be changed, other than by re-loading the OCP "master" program cassette, in which case you would lose any data files you had established.

The final phase of the customising process requests information about the printer, printer interface, and the type of stationery being used. The first prompt will request "TYPE OF PRINTER"; you should press 1 if your printer is a MICROLINE printer, 2 if it is a EPSON COMPATIBLE printer, or 3 for any OTHER PRINTER.

If the OTHER PRINTER option is selected, secondary prompts will be displayed requesting details of the printer codes for "ENLARGED" and "NORMAL" sized characters. STOCK MANAGER prints the NAME OF YOUR COMPANY in enlarged characters in the headings of Invoices and Price Lists, to give a stylised letter-heading to these print-outs, and the printer code information must be specified to ensure correct printer operation.

Most modern printers have internal switches (called DIP

switches) which control certain functions in the printer. One of these switches is frequently used to control what is known as 'auto line feed', ie a facility to make the paper automatically advance/not advance one line every time a line of information is printed. If your printer is set internally to suppress auto line feed, then you should select option 1 "LINE FEED ON" to ensure correct line spacing on your print-outs. If auto line feed is provided by the printer, then select option 2 "LINE FEED OFF".

STOCK MANAGER supports a very wide range of 80 column printers, and no fewer than 15 different printer interfaces. You should refer to Section 14 "PRINTER CONSIDERATIONS" for detailed customising information for the "TYPE OF INTERFACE" prompt.

The final questions request you to specify "FORM DEPTH IN INCHES", for "INVOICE" and "REPORTS AND PRICELIST" stationery. The answers to these questions will ensure correct pagination of the Invoices and other Reports.

Customising terminates with the STOCK MANAGER Master Menu being displayed. The Master Menu is the system control screen from which all major options are selected. Sections 5-13 of these Instructions describe the various options available to the user.

5. ESTABLISHING THE STOCK FILE

You are now ready to think about setting up the Stock Master File. THINK is the operative word here, and if the integrity of the Master File and your confidence in its content is to be assured, a methodical and painstaking approach is essential. Incorrect data in the Stock Master File will cause unnecessary call backs from your Customers with the inevitable effect on the 'bottom line' of your accounts.

Establishing the Master File will probably be the largest single task you undertake before invoicing occurs, so take your time and be patient; a little forward planning now will not go amiss! Break the task down into manageable proportions and set up, say, 20-30 products at a time.

Setting up the Master File consists of two separate operations. The first operation is to input basic information about the product; namely, its Product Code, Description, Unit Price, a VAT indicator showing whether or not the product is subject to VAT, and the Minimum Stock Level of this product to be held. The second operation consists of setting the initial Stock Quantity for each product now on the Master File.

After each set-up session print out a Stock Status Report (see Section 7 for details); this will provide you with a hard copy of all your input data. The print-out may be checked against your original data sheets, and corrections made if necessary.

We will now look at the actual set up procedures in more detail.

If you are in step with these Instructions you should now have the Master Menu displayed on the screen, with the following options listed:

1. INVOICE AND STOCK DECREASE
2. STOCK DECREASE ONLY
3. STOCK INCREASE
4. STOCK STATUS
5. REORDERING
6. PRICE LIST
7. AMEND/CHANGE
8. TODAY'S SALES + SAVE

Select the "AMEND/CHANGE" option by pressing key 7. The Amend/Change menu will now be displayed with the following options:

0. MENU
1. NEW GOODS/CHANGE NAME
2. ITEM PRICE
3. MINIMUM STOCK
4. VAT
5. DATE
6. COMPANY TEXT
7. PRINTER AND PAPER

Call the "NEW GOODS" menu by pressing key 1. Successive prompts will now request input of NO. (Product Code), NAME (Description), PRICE EX VAT (Unit Price), VAT ON ITEM? (Y/N), and MIN STOCK (Minimum Stock Level). After input of the MIN STOCK field the program automatically returns to the NO. field to request details for the next product. This cycle may be repeated until such time as you wish to terminate input.

Each product must be assigned a unique Product Code, and these must lie in the range 1-600. The special Code of "0" is used to terminate data input and to return you to the Master Menu.

The Product Description may be up to 25 characters in length, and may comprise any combination of upper and lower case letters or figures. **CAPS LOCK** may be used in the normal manner.

At this stage it is assumed that you will still be familiarising yourself with setting up the Stock Master File. Once you are using STOCK MANAGER in a live situation, however, you must remember to save your data input before switching off the computer. Section 13 - "SAVING/LOADING STOCK MANAGER FILES" gives full details of how this is accomplished.

6. STOCK LEVEL ADJUSTMENTS

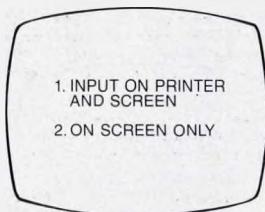
Stock level adjustments will be necessary for a variety of reasons, and may be made at any time. One reason for a stock adjustment will be as a consequence of Stocktaking (stock counting), which will be performed at regular intervals; eg annually or six-monthly. Any imbalance detected between the Stock Master File and the actual stock position would need to be investigated and the Stock Master File stock levels adjusted as necessary.

Separate functions exist within STOCK MANAGER either to Increase or Decrease stock levels independently of any Invoice run. Invoicing will, of course, decrease stock levels automatically as sales to customers are processed. The choice of stock Increase or Decrease is made by selecting option 3 or 2 respectively from the Master Menu.

Our first use of the stock adjustment function, however, will be to complete the Stock Master File set up. Remember, to date we have only input the basic information for each product, but not yet supplied any Stock Quantities. This is achieved via the Stock Increase facility.

It is assumed that you will have undertaken a preliminary stock count, and will know the quantity on hand for each product. Follow the procedures outlined in the remainder of this Section to complete the Stock Master File set up.

Select option 3 "STOCK INCREASE" from the Master Menu; the Stock Increase menu will be displayed with the following two options:



Option 1 will produce a hard copy print-out of all Stock Increase adjustments as they are made. The hard copy is known as an "audit trail" and, as the name suggests, provides a list (trail) of your adjustments so that a check (audit) may be performed later on. Although option 2 may be used occasionally, it is recommended that audit trails are printed regularly, and filed as a permanent record of any manual adjustments that have been made to the Stock Master File.

At the NO. prompt enter the Code for the product for which you wish to increment the stock level. Non-existent Product Codes will be ignored and you will be returned to the NO. prompt.

Valid Product Codes will result in the Description (truncated) being displayed before proceeding to the QTY prompt. If you have selected the wrong product by mistake enter 0 quantity and press ENTER ; this will return you to the NO. prompt without affecting the Quantity for the wrongly selected product.

If the correct product has been selected enter the Quantity by which you wish to increase the stock level and press **ENTER**. This will augment your stock for this product and return you to the NO. prompt.

Continue following the NO. and QTY prompts. If the screen display becomes full (after every 18 adjustments) it will automatically be cleared down before proceeding to the next adjustment.

Entering Product Code 0 will terminate the Stock Increase function, with an immediate return to the Master Menu.

Stock Decreases are handled in exactly the same manner as Stock Increases except that option 2 must be selected from the Master Menu initially.

7. STOCK STATUS REPORT

The current stock position for a given product, or range of products, may be determined at any time via the Stock Status menu; this menu being first called from the Master Menu by selection of option 4 "STOCK STATUS". The Stock Status menu displays the following options:



Option 0 takes you directly back to the Master Menu, should you have arrived at the Stock Status menu by mistake.

Options 1 and 2 are for stock level "enquiries" and, when selected, display the Product Code, Description (truncated), and

Stock Quantity only. In this way details for each product can be accommodated on a single screen line, and the enquiry response time minimised.

Option 3 provides a hard copy printed report, and utilises the full 80 column capability of your printer. As a result more comprehensive details may be listed for each product. In addition to the Product Code, Description (full), and Stock Quantity, the Minimum Stock Level, Unit Price, VAT Indicator (an "*" following the Unit Price indicates that VAT is applicable to the product), and extended Stock Value (ie Quantity x Unit Price) are also listed. This report will provide a dated "file copy" of your current stock holding, and is the report that is used to validate the content of the Stock Master File.

Select the option you require in the usual way, and then follow the lead-through prompts. In all cases, after the requested function has been performed STOCK MANAGER will return you to the Master Menu, and thence to further functions of your choice.

8. PRICE LIST

Complete or partial Price List information may be extracted from the Stock Master File and displayed on the screen, or printed as hard copy. Screen displays show the Price details both inclusive and exclusive of VAT. Printed Price Lists may be either with or without VAT, and are in "letter-headed" form with NAME OF YOUR COMPANY, ADDRESS, and PHONE shown at the top of the page. This makes them suitable for despatch to individual customers, or for photocopying before bulk mailing to your customer base.

To obtain the Price List information, select option 6 "PRICE LIST" from the Master Menu. The Price List menu will be displayed, and the prompts will then ask you to specify the first (FROM) and last (TO) Product Codes for the range of products you wish to include in the Price List display/print.

Enter 1 in response to the FROM prompt and 600 in response to the TO prompt if you want the complete listing, or a less inclusive range to select a partial Price List. The INC/EXC VAT? prompt should be answered by entering 1 or 2 as appropriate.

Don't forget to check that your printer is ready, and that the stationery alignment is correct before printing commences. Once the Price List has been printed STOCK MANAGER will return you to the Master Menu to select your next option.

9. INVOICING

Orders received will be invoiced to the customer. This may be

performed at any time, but orders will normally be "batched" together until the quantity makes a processing run worthwhile. According to the level of incoming orders you may elect to produce Invoices once a day, or more or less frequently.

(This latter action is more of an emergency procedure than a prime method of establishing products on the Stock Master File. You should use the NEW GOODS/STOCK STATUS facilities to ensure an orderly and documented Stock Master File set up - as described in Section 5 "ESTABLISHING THE STOCK MASTER FILE")

If the item is non-existent - ie it has not been established on the Stock Master File - a warning bleep will sound, and the prompt DO YOU WANT TO INPUT (Y/N) will be displayed. Enter N if you have made an error whilst entering the Product Code, or Y if you wish to set up data on the Stock Master File for this product.

We are now ready to input details of the goods (products) to be supplied. At the prompt NO. enter the appropriate Product Code for the item.

Successive prompts will now request the CUSTOMER name (of the customer to whom the goods are being supplied), and ADDRESS. After entry of the ADDRESS lines you will be asked for confirmation of the information, and the prompt ARE YOU SURE?(Y/N) will give you the opportunity (N) to re-input the CUSTOMER and ADDRESS details again, should they have been entered incorrectly. On acceptance (Y) the CUSTOMER, ADDRESS, INVOICE NO. (the next one in sequence) and DATE will be printed on the Invoice.

The invoicing run is selected from the Master Menu using option 1 "INVOICE AND STOCK DECREASE". Immediately on selecting this option, NAME OF YOUR COMPANY, ADDRESS, and PHONE are printed on the Invoice, so you must ensure that the stationery is correctly aligned in the printer. This initial phase of invoicing effectively letter-heads your Invoice.

Remember, however, that as Invoices are produced the stock levels on the Stock Master File will be automatically reduced, and it will be necessary to save the Master File after each Invoicing session to preserve the changed stock position. If you are running a cassette-based system the save/load time overhead may affect your decision as to the frequency of Invoice preparation.

Should you need to set up a new item at this time, follow the prompts NAME, PRICE EX VAT, VAT ON ITEM (Y/N), MINIMUM STOCK, STOCK INCREASE, and SALES QUANTITY. All but the last entry (SALES QUANTITY) are used to set up the Stock Master File entry for the product; the SALES QUANTITY entry being used for the

current Invoice line. After accepting the SALES QUANTITY, the Invoice line is printed and you will be returned to the NO. prompt to input the next Product Code.

If you enter the Product Code for an established product on the Stock Master File, the NAME, ITEM PRICE (EXC VAT), and IN STOCK quantity will be displayed before prompting the SALES QUANTITY.

Three conditions can now occur; namely, no goods IN STOCK, insufficient goods IN STOCK, or sufficient goods IN STOCK.

If the no goods IN STOCK condition applies, you will be asked DO YOU WANT TO INPUT (Y/N) and, if so, the STOCK INCREASE required. The prompts will lead you through. However, remember that this Stock Increase will not be documented as it would if you were using the Stock Increase facility of STOCK MANAGER.

A quick check of the IN STOCK quantity will determine if either of the other two conditions apply. If you have sufficient stock on hand, proceed to enter the SALES QUANTITY to complete the Invoice line. If not, you will only be able to satisfy a partial order. (Unless you have a very large incoming order, not consistent with your normal stock holding, this should not happen frequently. Regular RE-ORDER reporting should assist you to maintain adequate stock levels to meet incoming orders.)

It is not possible to sell more goods than the actual quantity IN STOCK. You may only satisfy orders up to the quantity that is available (partial order). Alternatively, you may enter 0 (zero) SALES QUANTITY, in which case this Product will be ignored, with an immediate return to the NO. prompt for the next Product Code.

Two pseudo Product Codes 601 and 602 are provided to handle Discounts and other special trading requirements (eg Postage & Packing, Carriage, etc).

If Code 601 is specified you will be prompted with DISCOUNT% and you should respond with the appropriate value. Once the value is accepted the Discount Amount will be calculated on the total Sales Value of the Invoice and printed on the next Invoice line.

Product Code 602 is a special code to allow such items as Postage & Packing to be handled. With this code you will be prompted to supply TEXT, AMOUNT, VAT ON THIS AMOUNT?(Y/N). The TEXT prompt allows input of a short descriptive text associated with the AMOUNT to follow. Finally, you will be asked whether VAT is applicable to the AMOUNT or not. As soon as all details are input and accepted they are printed on the Invoice.

After Codes 601 or 602 have been processed you will be returned to the NO. prompt for further input. The 601/602 codes can be used anywhere on the Invoice, but would normally only be used at

the end of an Invoice after the last goods line. The ingenuity of the user may determine a variety of uses for these codes once a general familiarity with the way Invoices are constructed has been attained.

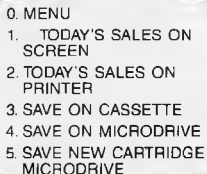
As soon as you have completed an Invoice you should enter Product Code 0; STOCK MANAGER will then automatically line feed (slew) the stationery to the head of a new sheet in readiness for the next Invoice. Should the number of lines on a given Invoice exceed the specified page depth, a continuation Invoice will automatically be produced.

10. TODAY'S SALES REPORT

After each Invoicing session, and BEFORE saving the STOCK MANAGER files on cassette or Microdrive, you should utilise the TODAY'S SALES facility to produce a summarised listing of all Invoices prepared in that session.

IT IS IMPERATIVE THAT THE TODAY'S SALES REPORT IS PRODUCED BEFORE SAVING THE STOCK MANAGER FILES, SINCE THE ACT OF SAVING THE FILES WILL CLEAR THE TODAY'S SALES TOTALS. THEY CANNOT BE RECOVERED.

Select option 8 "TODAY'S SALES + SAVE" from the Master Menu, and this will display the Today's Sales + Save menu on the screen with the following options:

- 
- 0. MENU
 - 1. TODAY'S SALES ON SCREEN
 - 2. TODAY'S SALES ON PRINTER
 - 3. SAVE ON CASSETTE
 - 4. SAVE ON MICRODRIVE
 - 5. SAVE NEW CARTRIDGE MICRODRIVE

At this stage we are only concerned with options 1 and 2 (and possibly 0). Options 3, 4, and 5 will be described in Section 13 "SAVING/LOADING STOCK MANAGER FILES", and may be ignored for the time being.

Option 1 will display accumulated totals for the Sales Value (exc VAT), VAT, and Sales Value (inc VAT), and then pause. Pressing any key (other than **CAPS SHIFT** or **SYMBOL SHIFT**) will return you to the Master Menu.

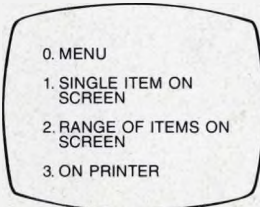
Option 2 is used to produce a hard copy print-out of the Sales and VAT totals, as in option 1, and in addition will list the

Sales Values (inc VAT) for the individual Invoices prepared in that session. The print-out is letter-headed with the NAME OF YOUR COMPANY, ADDRESS, PHONE, and DATE.

11. RE-ORDERING STOCK

Whenever the stock level of a given product falls below its Minimum Stock Level, it will need to be re-ordered. To facilitate the re-ordering process STOCK MANAGER can produce a listing from the Stock Master File showing all items with an insufficient stock holding.

Option 5 "RE-ORDERING" should be called from the Master Menu, and this will display the Re-order menu with the following options:

- 
- 0. MENU
 - 1. SINGLE ITEM ON SCREEN
 - 2. RANGE OF ITEMS ON SCREEN
 - 3. ON PRINTER

Press 0, 1, 2, or 3 as appropriate to initiate the required function, and then follow the prompts as displayed.

The option 1 "SINGLE ITEM ON SCREEN" function must be terminated by entering the NO. (Product Code) = 0 to return to the Master Menu. Any non-existent Product Code entered will be ignored with an immediate return to the NO. prompt. Similarly, if the Stock Quantity for the Product selected is greater or equal to the Minimum Stock Level (ie re-ordering is unnecessary), no display occurs with an immediate return to the NO. prompt.

Options 2 and 3 will request a FROM and TO range of Product Codes to be entered. Once the selected function has been performed STOCK MANAGER returns directly to the Master Menu.

If you should have selected option 2 or 3 by mistake, you may simply enter 0 in response to either the FROM or the TO prompt to return you directly to the Master Menu.

12. AMEND/CHANGE FACILITIES

There will be occasions during a processing run when you will wish to change, or correct, information within the STOCK MANAGER

system. The information requiring change may be on the Stock Master File - eg a Product Description, or Minimum Stock Level - or it may be a general system "parameter" such as the % VAT Rate, or Date.

All such changes may be effected using the AMEND/CHANGE facility selected via option 7 on the Master Menu. The Amend/Change menu has already been used once, during the Stock Master File set up for New Goods, and you will recall the following options:

0. MENU
1. NEW GOODS/CHANGE NAME
2. ITEM PRICE
3. MINIMUM PRICE
4. VAT
5. DATE
6. COMPANY TEXT
7. PRINTER AND PAPER

Option 0 will, by now, be very familiar to you and will return you to the Master Menu. Option 1 "NEW GOODS" was described in detail in Section 5 "ESTABLISHING THE STOCK FILE".

Option 1 "CHANGE NAME" provides the facility to change Product Descriptions, and also to CLEAR items from the Stock Master File. In either instance the lead-through prompts will ask you to specify the Product Code (NO.) of the product to be changed/deleted, confirm correct selection ("OK? Y/N"), and then confirm that you wish to change this Product Description ("CHANGE NAME? "). Enter the new Product Description, or "." to CLEAR.

Options 2, and 3, provide facilities to change the Item Price and Minimum Stock Level of items on the Stock Master File.

Options 4 and 5 relate to VAT and DATE changes. In both cases the OLD entry will be displayed followed by a NEW prompt to request the new value. The VAT Rate (default value 15%) relates to all products subject to VAT, and the new value will be applied until it is superceded by another value. The NEW DATE will, similarly, be applied throughout the system until changed again.

Option 6 "COMPANY TEXT" enables the ADDRESS LINES and PHONE entries for YOUR COMPANY to be altered. NOTE THAT YOU CANNOT ALTER THE NAME OF YOUR COMPANY. This is intentional, and once you have "customised" STOCK MANAGER all cassettes or Microdrive files are, in effect, personalised to your Company. The change facility is provided to allow use of STOCK MANAGER at subsidiaries of your Company which may be operating from different addresses.

The last Amend/Change option, 7 "PRINTER AND PAPER" allows the various printer parameters, specified during the "customising" procedure to be altered. The prompts are identical to those described in Section 4 "CUSTOMISING STOCK MANAGER" and will not be discussed again here.

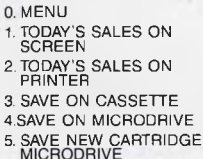
13. SAVING/LOADING STOCK MANAGER FILES

There is an old saying in the computer industry "GARBAGE IN - GARBAGE OUT". This saying is as true today, with the modern microprocessor, as it was in the days of Charles Babbage and his Analytical Difference Engine. If you give a computer incorrect information, it will process that information faithfully, according to any stored program, and produce "perfect" but useless results.

There are two lessons to learn from the above. Firstly, when setting up a system you must take extreme care and attention to ensure the integrity of your system files; in our case the Stock Master File, which is central to the operation of STOCK MANAGER. Secondly, having established correct system files, you must always work in a way that maintains the integrity and security of those files. You would not be the first, or last, person to spend a large amount of time and effort, say, typing in a long program, only to forget to SAVE it before switching off the computer. A mistake usually made only once!

During each session with STOCK MANAGER certain actions will have been taken which result in changes occurring to the Stock Master File and/or system parameters ; eg every Invoice run will decrement the stock levels by the quantities of items sold. It is therefore essential that the STOCK MANAGER files are preserved (SAVED) in their current and modified state after every computer session, and BEFORE your Spectrum is switched off. The STOCK MANAGER files may be SAVED either on cassette or Microdrive, and the remainder of this Section will describe the detailed procedures for SAVING and LOADING files.

Initially you should select option 8 "TODAY'S SALES + SAVE" from the Master Menu, and this will display the Today's Sales + Save menu with the following options:

- 
0. MENU
 1. TODAY'S SALES ON SCREEN
 2. TODAY'S SALES ON PRINTER
 3. SAVE ON CASSETTE
 4. SAVE ON MICRODRIVE
 5. SAVE NEW CARTRIDGE MICRODRIVE

Options 0, 1, and 2 have already been described in Section 10 "TODAY'S SALES REPORT", and only options 3, 4, and 5 are relevant here. Note that on the menu screen you will be told "ON SAVE: USE TAPE NO. 2" (or TAPE NO. 1). In this context the word TAPE refers to either a cassette or Microdrive cartridge.

To safeguard the security of the STOCK MANAGER program and system files, they are stored to TAPE 1 and TAPE 2 alternately, to ensure "recovery" in the event of a failure. If only a single tape were to be used and for some reason it became unreadable, you would have a catastrophic failure from which no recovery would be possible. You must always have a minimum of two serviceable cassettes or Microdrive cartridges available to run STOCK MANAGER.

Label your cassettes or Microdrive cartridges as "TAPE 1" and "TAPE 2" respectively. When SAVING ensure that the correct number tape is used, as specified on the Today's Sales + Save menu.

NOTE: IF YOU ARE USING MICRODRIVE, THE CARTRIDGES MUST BE FORMATTED BEFORE BEING USED (see ZX Spectrum Microdrive & Interface Manual Page 19).

If you intend to run a cassette-based system, selecting option 3 will initiate the cassette Save (and Verify) function. Follow the prompt instruction "DISCONNECT EAR LINE" by removing the EAR plug connection to your cassette recorder. When asked "START TAPE THEN PRESS ANY KEY", set your recorder in motion on RECORD and press any key. The message "WAIT - RECORDING" will be displayed to confirm that recording is in progress.

As soon as recording is complete the prompt "READY FOR VERIFY" will be displayed. RECONNECT THE EAR LINE, rewind the cassette, and set it in motion on PLAY; verification will occur automatically without further intervention on your part.

When verification is complete STOCK MANAGER will call the Date Screen to enable a new processing run to commence. If you decide to terminate your computer session at this point, the cassette just verified will become the input program and file cassette for the next run. You do not go back to the original program cassette.

To re-load STOCK MANAGER from cassette you must be in BASIC mode; ie just switched your Spectrum on. Type **LOAD** "", start recorder in PLAY mode, and **ENTER**. LOAD, SAVE, and VERIFY times are all approximately 3 1/2 minutes.

Running a Microdrive-based system brings considerable time savings in the LOAD/SAVE procedures. However, before running a Microdrive-based system, certain preparatory steps must be taken

to transfer the cassette-based STOCK MANAGER program and files to Microdrive.

Remember, you must have a minimum of two serviceable and FORMATTED Microdrive cartridges available at all times to run STOCK MANAGER and these should be physically labelled "TAPE 1" and "TAPE 2".

Load the supplied program cassette in the normal way, and complete the "customising" procedures as detailed in Section 4. As soon as you reach the Master Menu, insert the first of your two cartridges into Microdrive No. 1, and select option 5 "SAVE NEW CARTRIDGE MICRODRIVE". This will transfer all STOCK MANAGER program and file data to the cartridge, and return to the Master Menu. The time for this initial transfer operation is approximately 3 1/2 minutes.

Now remove the first cartridge from the Microdrive and insert the second cartridge. Reselect option 5 from the Master Menu to "initialise" this cartridge with the STOCK MANAGER program and file data. The two cartridges are now ready for use, and the program cassette is no longer required (other than in an emergency). You will only need to use option 5 again if you introduce a new cartridge into your SAVE cycle.

You can now load and run STOCK MANAGER from Microdrive. Loading is accomplished by pressing **NEW** immediately followed by **RUN** and **ENTER**. Load time is, typically, less than 1/2 minute.

Run STOCK MANAGER in the normal way, until you wish to SAVE to Microdrive. This time select option 4 "SAVE TO MICRODRIVE" to save your current Stock Master File and system parameters on cartridge. The SAVE time is now seconds instead of minutes as with cassette. (The Microdrive, being a random access device allows the Stock Master File and other system data to be written to cartridge independently of the STOCK MANAGER program. On cassette, however, which is a serial device, both program and system files must be written to cassette every time.)

14. PRINTER CONSIDERATIONS

STOCK MANAGER has been designed to operate with an extensive range of different printer interfaces; thereby giving the user access to a very wide choice of 80 column dot matrix, or other, printers.

The printer interface is simply a plug-in module, sitting between the ZX Spectrum and your printer, and provides all of the necessary hardware communication and control "protocol" between the microprocessor and the printer itself.

On initial use of STOCK MANAGER, and whenever a change of printer/printer interface occurs, the user must customise the STOCK MANAGER system to incorporate the appropriate "printer driver" software for the specific interface being used. This process commences with the "TYPE OF INTERFACE" prompt being displayed, together with three options as follows:

- 1. NO CHANGE
- 2. NEW OCP DRIVER
- 3. YOUR OWN DRIVER

The STOCK MANAGER cassette supplied by OCP incorporates the printer driver for the Sinclair ZX Interface 1 as standard. If you are using this interface, or you have already configured the STOCK MANAGER system for the printer interface in use, then you should select Option 1 "NO CHANGE".

If an RS232 Serial interface is in use, secondary prompts will request details of "BAUD" (transmission rate), "PARITY (0=OFF,1=ODD,2=EVEN)", "BITS(7/8)" (number of bits/character), and "STOP (1/2)" (number of stop bits). You will then be returned to complete the customising procedure (Section 4).

The OCP supplied cassette also contains 15 user-selectable printer drivers to support the following interfaces:

- | | |
|-----------------------|------------|
| 1. KEMPSTON 'S' | CENTRONICS |
| 2. KEMPSTON 'E' | CENTRONICS |
| 3. TASMAN 'A' | CENTRONICS |
| 4. TASMAN 'B' | CENTRONICS |
| 5. TASMAN SERIAL | RS232 |
| 6. HILDERBAY | CENTRONICS |
| 7. MOREX | CENTRONICS |
| 8. MOREX | RS232 |
| 9. ZX INTERFACE 1 | RS232 |
| 10. ZX LPRINT II/III | CENTRONICS |
| 11. ZX LPRINT II/III | RS232 |
| 12. MICRO PERIPHERALS | CENTRONICS |
| 13. DIRECO | CENTRONICS |
| 14. INDESCOMP | CENTRONICS |
| 15. INDESCOMP | RS232 |

The user-selectable drivers are recorded immediately following the STOCK MANAGER program. If option 2 "NEW OCP DRIVER" is to be selected, you must first ensure that the cassette is correctly positioned in front of the driver software. Upon selection of option 2, the drivers will be loaded into memory, and the OCP PRINTER DRIVER menu displayed; you may now make your choice of interface.

The range of interfaces catered for in STOCK MANAGER is extensive. However, there may be a special requirement not included in the list of user-selectable interfaces. Option 3 "YOUR OWN DRIVER" provides technically informed users with the facility to incorporate their own printer driver software.

The driver must be written as a machine code block, not exceeding 200 bytes in length, and with an origin (ORG) at address 64335. It must be presented on cassette as input to the customising process.

Three machine code routines are required:

1. An "Initialisation" routine to initialise the interface. If your interface needs no special initialisation, this routine can just be a RET instruction.
2. A "Busy" routine to check the status of the printer. It returns with the zero flag set (Z) if the printer is ready, but with the zero flag reset (NZ) if the printer is busy.
3. A "Print Byte" routine which is fed with an ASCII code in the accumulator, and outputs this code to the printer.

Note that each of these routines must be terminated with a RET instruction, and that any of the registers AF, BC, DE and HL may be used within them.

The interface driver is completed by preceding these three routines with 5 "vectors". These must contain, respectively, the start address of the driver, the entry address of the Initialisation routine, the entry address of the Busy routine, the entry address of the Print Byte routine, and the length of the driver as a whole (length of the three routines plus 10 bytes for the 5 vectors). Assemble the routines with an origin of 64335, and output the object code to cassette. This forms the input to the customising process.

This may all sound very complicated, but the example shown on the following page, for the KEMPSTON 'S' CENTRONICS interface, should clarify the construction of a typical driver.

Once the appropriate printer driver has been incorporated into STOCK MANAGER, you will be returned to the final phase of the customising process. Non-technical users are advised not to attempt writing their own drivers!

NOTE: YOU SHOULD ALWAYS STUDY THE LITERATURE ACCOMPANYING THE PRINTER AND INTERFACE HARDWARE CAREFULLY TO ENSURE CORRECT INSTALLATION AND OPERATION. FAILURE TO DO SO CAN RESULT IN EXPENSIVE DAMAGE TO YOUR SPECTRUM AND/OR INTERFACE.

EXAMPLE OF INTERFACE DRIVER

```

00010 ; DRIVER FOR THE KEMPSTON 'S' CENTRONICS
00020 INTERFACE.
00030 ;
FF4F 00040          ORG          OFF4FH
00050 ;
00060 ; THE FIRST PART OF THE DRIVER CONSISTS OF
00070 ; 5 VECTORS.
00080 ;
FF4F 4FFF 00900 START  DEFW  START
FF51 59FF 00100          DEFW  INIT
FF53 65FF 00110          DEFW  BUSY
FF55 6DFF 00120          DEFW  PRINT
FF57 2D00 00130 LENGTH  DEFW  END-START
00140 ;
00150 ; THIS ROUTINE INITIALISES THE INTERFACE.
00160 ;
FF59 01BFE3 00170 INIT   LD      BC,0E3BFH
FF5C 3E81 00180          LD      A,081H
FF5E ED79 00190          OUT     (C),A
FF60 3E0F 00200          LD      A,0FH
FF62 ED79 00210          OUT     (C),A
FF64 C9 00220          RET
00230 ;
00240 ; THIS ROUTINE CHECKS THE STATUS OF THE
00250 ; PRINTER. RETURNS WITH ZERO FLAG SET IF THE
00260 ; PRINTER IS READY.
00270 ;
FF65 01BFE2 00280 BUSY   LD      BC,0E2BFH
FF68 ED78 00290          IN      A,(C)
FF6A C847 00300          BIT     0,A
FF6C C9 00310          RET
00320 ;
00330 ; THIS ROUTINE SENDS THE CHARACTER IN THE
00340 ; ACCUMULATOR TO THE PRINTER.
00350 ;
FF6D 01BFE0 00360 PRINT  LD      BC,0E0BFH
FF70 ED79 00370          OUT     (C),A
FF72 06E3 00380          LD      B,0E3H
FF74 3E0E 00390          LD      A,0EH
FF76 ED79 00400          OUT     (C),A
FF78 3C 00410          INC     A
FF79 ED79 00420          OUT     (C),A
FF7B C9 00430          RET
00440 ;
00450 ; END OF DRIVER.
00460 ;
FF7C 00470 END      EQU     *
00480 ;
00490          END

```


15. TEST DATA

Side B of the OCP supplied cassette contains Test Data. The Test Data is recorded in the standard "end of session" format; ie, the STOCK MANAGER program together with an established Stock Master File. To access the Test Data, load the program cassette to the beginning of Side B, type **LOAD ""**, start your cassette recorder on PLAY, and then press **ENTER** as though you were commencing a normal run. Once loaded you may perform all of the STOCK MANAGER functions, and print any of the system Reports.

16. CONCLUSION

If you have reached this point by the route recommended in Section 1, Congratulations, you should now have a working knowledge of the various facilities provided by STOCK MANAGER. Continued practical use of the system will further enhance this knowledge, and we at OCP are confident that your investment in this program will be handsomely repaid in a very short period of time.

The quality of this and future OCP program products depends to a very large extent on the original design and development work, but also on the valuable feedback received from our many users. Even with the most rigorous checking and testing, "bugs" can remain dormant in programs, only to appear when a particular combination of conditions arise. Similarly, documentation can be subject to misunderstanding or misinterpretation of the written word. If, after using STOCK MANAGER, you have a moment to spare, please drop us a short line with your comments and/or criticism. We endeavour to answer all such correspondence.

Thank you, once again, for selecting OCP's STOCK MANAGER to meet your business needs. Inside the front and back covers of this Instruction Booklet you will find additional information about OCP and their range of business "MANAGER" programs, program development tools and utilities, and classical games. Please contact us if you would like further details.

Wishing you improved Stock Control

Oxford Computer Publishing Ltd.

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APPENDIX: SAMPLE OUTPUT REPORTS

STOCK STATUS DATE 23 AUGUST 1984

NO.	GOODS	MINIMUM STOCK	PRICE	QUANTITY	VALUE
1	ZX SPECTRUM	100	99.99*	199	19898.01
2	LEARN BASIC	250	7.75	299	2317.25
3	Z80 ASSEMBLER PROGRAMMING	50	11.55	50	577.50
4	MASTERING MACHINE CODE	55	7.50	55	412.50
5	FINANCE MANAGER	1000	19.95*	1250	24937.50
6	DATABASE	75	25.35*	790	20026.50
7	GRAPHICS GENERATOR	45	12.99*	50	649.50
8	CENTRONICS INTERFACE	25	45.50*	1	45.50
9	UNDERSTANDING BASIC	120	4.55	120	546.00
10	ROM DISASSEMBLER	100	15.75*	10	157.50
11	TTL DATABOOK	65	14.50	65	942.50
12	DOT MATRIX PRINTER	15	200.50*	12	2406.00
13	BENJO THE DOG	640	17.50*	640	11200.00
14	STAR WARS	175	5.50*	525	2887.50
15	SALES LEDGER	75	23.35*	145	3385.75
16	NOMINAL LEDGER	450	18.75*	450	8437.50
17	WORD MANAGER	425	19.95*	425	8478.75
18	COMPUTER BRIDGE	125	17.75*	500	8875.00
19	SCRABBLE	50	14.95*	485	7250.75
20	STOCK CONTROL	70	19.95*	70	1396.50
21	CASINO ROYAL	250	15.55*	200	3110.00

STOCK VALUE EXC VAT:

127938.01

★ ★ ★ ★ ★

STOCK ADJUSTMENT (INCREASE) 23 AUGUST 1984

NO.	GOODS	QUANTITY
1	ZX SPECTRUM	199
2	LEARN BASIC	299
3	Z80 ASSEMBLER PROGRAMMING	50
4	MASTERING MACHINE CODE	55
5	FINANCE MANAGER	1250
6	DATABASE	790
7	GRAPHICS GENERATOR	50
8	CENTRONICS INTERFACE	1
9	UNDERSTANDING BASIC	120
10	ROM DISASSEMBLER	10
11	TTL DATABOOK	65
12	DOT MATRIX PRINTER	12
13	BENJO THE DOG	640
14	STAR WARS	525
15	SALES LEDGER	145
16	NOMINAL LEDGER	450
17	WORD MANAGER	425
18	COMPUTER BRIDGE	500
19	SCRABBLE	485
20	STOCK CONTROL	70
21	CASINO ROYAL	200

ALPHA COMPUTERS LTD

123 Stewart Avenue
 Harrington
 London 6XX 4ZZ

Phone: 01-234-5678

TODAY'S SALES 23 AUGUST 1984

	VALUE EXCL. VAT	12291.28	
	15% VAT		1825.85
	VALUE INCL. VAT	14117.13	
INVOICE NO. 1234	VALUE INC VAT	3658.02	
INVOICE NO. 1235	VALUE INC VAT	3645.93	
INVOICE NO. 1236	VALUE INC VAT	6813.18	

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ALPHA COMPUTERS LTD

123 Stewart Avenue
 Harrington
 London 6XX 4ZZ

Phone: 01-234-5678

PRICE LIST (INC VAT) DATE 23 AUGUST 1984

NO.	GOODS	ITEM PRICE
1	ZX SPECTRUM	114.99
2	LEARN BASIC	7.75
3	Z80 ASSEMBLER PROGRAMMING	11.55
4	MASTERING MACHINE CODE	7.50
5	FINANCE MANAGER	22.94
6	DATABASE	29.15
7	GRAPHICS GENERATOR	14.94
8	CENTRONICS INTERFACE	52.33
9	UNDERSTANDING BASIC	4.55
10	ROM DISASSEMBLER	18.11
11	TTL DATABOOK	14.50
12	DOT MATRIX PRINTER	230.58
13	BENJO THE DOG	20.13
14	STAR WARS	6.33
15	SALES LEDGER	26.85
16	NOMINAL LEDGER	21.56
17	WORD MANAGER	22.94
18	COMPUTER BRIDGE	20.41
19	SCRABBLE	17.19
20	STOCK CONTROL	22.94
21	CASINO ROYAL	17.88

ALPHA COMPUTERS LTD

123 Stewart Avenue

Harrington

London 6XX 4ZZ

Phone: 01-234-5678

Beta Computer Supplies
The Arcade
Bridgetown
North Devon

INVOICE 1234

DATE 23 AUGUST 1984

NO.	GOODS	QUANTITY	ITEM PRICE	VALUE	VAT
1	ZX SPECTRUM	1	99.99	99.99	15.00
2	LEARN BASIC	1	7.75	7.75	0.00
4	MASTERING MACHINE CODE	5	7.50	37.50	0.00
4	DATABASE	10	25.35	253.50	38.02
8	CENTRONICS INTERFACE	1	45.50	45.50	6.83
9	UNDERSTANDING BASIC	5	4.55	22.75	0.00
12	DOT MATRIX PRINTER	2	200.50	401.00	60.15
13	BENJO THE DOG	10	17.50	175.00	26.25
14	STAR WARS	50	5.50	275.00	41.25
15	SALES LEDGER	5	23.35	116.75	17.51
17	WORD MANAGER	50	19.95	997.50	149.62
19	SCRABBLE	15	14.95	224.25	33.64
20	STOCK CONTROL	5	19.95	99.75	14.96
21	CASINO ROYAL	50	15.55	777.50	116.63
	SUBTOTAL			3533.74	519.86
	DISCOUNT 10%			-353.37	-51.99
	POSTAGE & PACKING			5.00	0.75
	CARRIAGE			2.50	0.38
	INSURANCE			1.00	0.15
	VALUE EXCL. VAT			3188.87	
	15% VAT				469.14
	VALUE INCL. VAT			3658.02	

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 CHICAGO, ILLINOIS 60637

OTHER PROGRAMS FROM OCP

In addition to the "MANAGER" series of programs, OCP are able to offer a comprehensive range of MACHINE CODE and BASIC programming tools, as well as our widely acclaimed Chess program CHESS — THE TURK and other classical games.

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