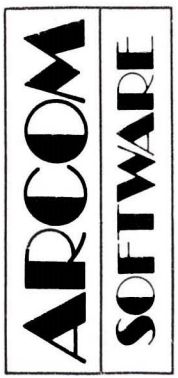
POLY PROGRAMS



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POLYWORD

CONTENTS

SECTION 1

INTRODUCTION

The POLY series

POLYWORD is the word processing program of the POLY series of programs. The programs in the POLY system are as follows:-

POLYWORD	- The word processor
POLYPRINT	- The NLQ variable font printing program
POLYMAIL	- The mailing list program
POLYPLOT	- The dot matrix graph plotting program

All the programs in the system operate in a similar way. So once you have used one program you can at once use any of them.

POLYWORD is designed for easy use by someone with no previous computer experience. However if you are not familiar with the CP/M Plus operating system then we strongly recommend that you read Appendix B of this manual.

POLY Keyboard

When any of the POLY programs is run it configures the keyboard to the same pattern. By doing this POLYWORD can use most of the keys on the right hand side of the keyboard in the same way as LOCOSCRIPT. This means that moving from LOCOSCRIPT to POLYWORD you do not have to change your editing technique. In addition, you can operate POLYWORD using the same keys as in WORDSTAR - the world's most popular word processing system.

For instance, you can move the cursor forward to the start of the next word either with the LOCOSCRIPT key SHIFT + WORD or with the WORDSTAR key ALT + F.

So if you are used to WORDSTAR you can use the ALT key and main keyboard. If you are used to LOCOSCRIPT you can use the numeric key pad. Or you can use a mixture of the two.

POLYWORD leaves the keyboard configured. If you wish to change back to the original configuration you can reset the computer by pressing SHIFT + EXTRA + EXIT together.

Menus in POLYWORD

As in all POLY programs, POLYWORD options are offered to you in the form of menus. When a menu is first displayed the first option is highlighted - black text on green background. This is called the Block Cursor. It can be moved by the UP and DOWN arrow keys.

To make POLYWORD operate in the same way as WORDSTAR the Block Cursor can also be moved up by pressing ALT + E (2 keys together) and moved down by pressing ALT + X.

When the Block Cursor is on the option you require you press the RETURN key to make that selection. The last option in each menu is to ESCAPE from that menu. The same effect can be achieved by simply pressing the EXIT key.

So when a menu is displayed only the following 6 keys can be used. Pressing any other key will display an error message.

[↑] or	ALT + E	MOVE BLOCK CURSOR UP
[↓] or	ALT + X	MOVE BLOCK CURSOR DOWN
RETURN		SELECT OPTION UNDER BLOCK CURSOR
EXIT		ESCAPE FROM THE MENU

If you fit additional drives to your Amstrad 8256 POLYWORD can operate on them. It allows you to change easily from drive to drive creating and editing files on any of them. Also POLYWORD will display the directory of the current disc, rename the current file or delete files on the current disc. Section 2 of this manual explains in detail these facilities.

ALT key

The ALT key at the bottom left of the keyboard is used to perform special functions especially during editing in POLYWORD. It is used by depressing it and then - at the same time - pressing one other key (A - Z). In this manual when you see ALT + T it means press the ALT key and the T key at the same time.

Running POLY programs

To run a POLY program switch on the computer and insert a CP/M plus start of day disc (with J10CPM3.EMS FILE). When the CP/M symbol A> is showing insert the disc with the program required into the drive. The label on the disc side required must be pointing to the screen. Then type the name of the program and press the RETURN key.

e.g. A>POLYWORD <RETURN>.

(this may be in either upper or lower case)

APPENDICES

Appendix B gives you a simple guide to CP/M. Appendix E explains the simplest way to use your discs and Appendix F tells you how to use ASCII files from Locoscript.

SECTION 2

TYPING AND EDITING

General

POLYWORD is the word processor program of the POLY system. It enables you to type, edit, save and print files of text. In addition it has facilities for renaming or deleting files and displaying the directory of the logged on disc drive. This section deals with the typing, editing and saving of files.

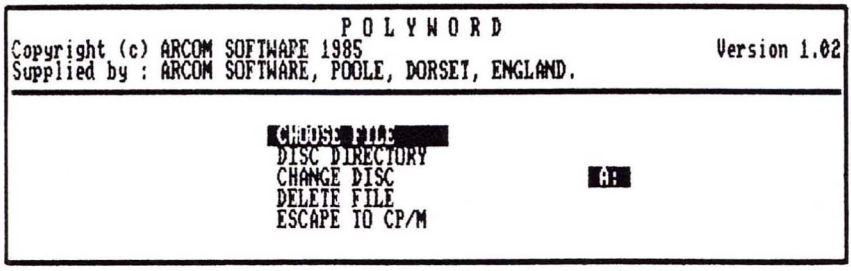
POLYWORD files are ASCII files that is they have no special control codes like Locoscript files. This means they can be used by POLYPRINT or they can be used for electronic mail etc.

POLYWORD is not a comprehensive word processor - you already have Locoscript, nevertheless it is easy to use and in conjunction with POLYMAIL it can print circular letters and labels. Also POLYWORD can produce documents which can subsequently be printed out by POLYPRINT in a mixture 25 possible typefaces.

The main limit in POLYWORD is that the file you are editing cannot be longer than 200 lines. This is enough for most letters or memos. If you are writing a book, use Locoscript.

POLYWORD Main Menu

When you run POLYWORD the first thing that appears is the Main Menu:-



This menu operates in the usual way - you move the Block Cursor using the UP and DOWN arrow keys and press the RETURN key to select the required option. The EXIT key will return you to the CP/M Plus operating system.

Choosing a file

On selecting the first option from the Main Menu the following message is displayed:-

```
ENTER NAME OF FILE TO EDIT OR PRINT _____________
                                    e.g. FILENAME.EXT
```

Pressing EXIT or RETURN immediately will get you back to the Main Menu. If you do wish to choose a file type its name and press RETURN.

CP/M file names

CP/M file names consist of up to 8 characters a full stop and up to a three character extention. For example FILENAME.EXT.

Not all the characters need be used and the extention is not compulsory. The following are therefore valid file names:-

SALES.LTR FILE.EXT F.DOC FILE F17 CUSTOMRS.JAN

The following characters CANNOT be used in CP/M filenames.

< > . , ; : = ? * [ ] _ % ¦ ( ) / \

Also no imbedded spaces are allowed in the filename or extention. Thus the following are all illegal file names:-

FILE 17 FILE<2>.DOC QUESTION.??? CUSTOMERS.JAN

POLYWORD will trap illegal file names and give an error message.

Creating new files

When choosing a file to edit you are asked to type the file name. If the file name is a legal CP/M name the logged on disc is searched to see if such a file exists. If the file does exist it is loaded and you enter the Edit Mode. If the file does not exist on the logged on disc then this question is posed:-

```
FILE NOT FOUND - CREATE A NEW FILE?
```

You must answer this question Y or N - N will take you back to the Main Menu to try again. Y will create a new file with that name.

(N.B. For ease of use in Germany, France, Italy and Spain all questions in the POLY programs can be answered with J = JA, O = Oui or S = Si instead of Y = Yes)

Edit Mode

Once you have chosen a file - whether it is an existing file or a new file - you enter the Edit Mode. In this mode you are ready to type new text or edit existing text. Initially the cursor is positioned at the top left hand corner of the first page of the file. The status line at the top of the screen tells you:-

The Current Disc
The Current File being edited
The Current Page Number
The Current Line Number
The Current Column Number
The Current Insert/Overwrite Status

This status line is constantly updated whilst you are editing.

Initially the line length is set to 65 characters and the page length is set to 55 lines. These are the same pre-set values as in Wordstar and POLYPRINT. These values can be changed using the ALT + O command, as explained later in this section.

Typing

You are now in a position to start typing. When you press any key that character appears and the cursor moves one space to the right ready for the next character. As you type past the end of any line word-wrapping occurs. This means that if a word over-runs the end of a line it is automatically transferred as the first word of the next line.

Correcting or editing text

To correct text you have already typed or to edit the text in an existing file you move the cursor to the first character to be changed. You can then either insert more words into the existing text, overtype existing text with new words or delete characters, words or lines.

Moving the cursor over text

To move the cursor you can either use the LOCOSCRIPT keys on the right of the keyboard or you can use the WORDSTAR commands. The following key combinations are equivalent:-

UP ARROW	ALT + E	Move cursor up 1 line
DOWN ARROW	ALT + X	Move cursor down 1 line
LEFT ARROW	ALT + S	Move cursor left 1 character
RIGHT ARROW	ALT + D	Move cursor right 1 character
SHIFT + WORD	ALT + F	Move cursor to next word
SHIFT + ALT + WORD	ALT + A	Move cursor to previous word

The cursor can also make bigger leaps if you wish to go through the text quickly.

PAGE	Move cursor to start of next page
ALT + PAGE	Move cursor to start of previous page
SHIFT + DOC	Move cursor to end of file
ALT + SHIFT + DOC	Move cursor to start of file

Effect of moving the cursor

If the cursor is going off the edge of the screen, either top or bottom, the text 'window' moves automatically to keep the cursor on the screen. Moving the cursor left at the beginning of a line makes it jump to the end of the previous line. Similarly moving it right at the end of a line makes it jump to the beginning of the next line.

Moving the screen

Sometimes it is more convenient to move the screen as a whole rather than just the cursor. The following commands are available for this purpose:-

	ALT + Z	Move screen down the text 1 line
	ALT + W	Move screen up the text 1 line
PARA	ALT + C	Move screen down the text 1 whole screen
ALT + PARA	ALT + R	Move screen up the text 1 whole screen

INSERT Mode

POLYWORD is normally in INSERT Mode. (The word INSERT appears in the top right corner of the screen) In this mode any text that is typed is inserted into the document moving the following text to the right.

OVERWRITE Mode - ALT + V

To change from the INSERT Mode to the OVERWRITE Mode or vice versa you use the command ALT + V. In Overwrite Mode the word OVERWRITE appears at the top right corner of the screen. In this mode any text typed will replace existing text to the right.

Deleting text

The following keys can be used to delete existing text.

DEL->	ALT + G	Deletes the character under the cursor
<-DEL or CAN	ALT + H	Deletes the character left of cursor
CUT	ALT + T	Deletes from cursor to next word right
SHIFT + CUT	ALT + Y	Deletes whole line the cursor sits on

Deleting characters forward or back can go from line to line but deleting words will not automatically go onto the next line.

RETURN key

Pressing the RETURN key moves the cursor to the beginning of the next line. Any text to the right of the cursor is carried with it to the start of the next line. Deliberately creating a new line like this puts what is called a HARD RETURN at the end of line. It is shown on the screen as a small arrow. This character does not get printed but it indicates two things:-

Lines ending in HARD RETURN will not be justified when printed.
Lines ending in HARD RETURN mark the end of a paragraph.

A new line which is created as a result of word wrapping ends in what is called a SOFT RETURN. It is 'SOFT' in that it can changed by reforming a paragraph.

Insert HARD RETURN - ALT + N

This command is the same as the RETURN key save that the cursor stays still and the text to the right of it moves to the beginning of the next line. Note that the line has a HARD RETURN added to it.

Set page format - ALT + O

The format of a page is governed by 2 numbers:-

(a) The maximum number of characters per line.
(b) The maximum number of lines per page.

These number are preset in POLYWORD and POLYPRINT to 65 characters per line and 55 lines per page - which are the Wordstar default values.

To change them press ALT + O. You are then able to set the characters per line. This can be a minimum of 10 and a maximum of 80 characters per line. If you press EXIT or RETURN without entering a number then the current value remains unaltered.

Next you are allowed to set the number of lines per page. The minimum value here is 5 lines per page. If you do not wish to have page breaks such as for a program listing then set this number to 999. Again pressing EXIT or RETURN without a number leaves this value unchanged.

Page edge marker

When you are editing text, at the right hand edge of the page there is a vertical line to mark the maximum number of characters per line currently set. If you type beyond this point word-wrap will occur. You can position the left hand edge of the text by using the print menu when you print out the document.

Paragraph reform - ALT + B or RELAY

If you alter some existing text it is often necessary to reform the paragraph to get rid of unwanted spaces etc. This can be done by positioning the cursor on the first letter of the paragraph and pressing RELAY or ALT + B. The text is then reprocessed line by line until it comes to either a line ending in a HARD RETURN or a blank line which it presumes to be the end of that paragraph.

Note that the reforming is done according to the current line length set in the ALT + O command. So if you have typed a piece of text at 65 characters per line it is possible to reset the characters per line to say 24 and then reform the text paragraph by paragraph to produce a newspaper column.

Toggle Hard Returns - ALT + U

A hard return can be deleted like any other character and it can be inserted using RETURN or ALT + N. However these operations can only be done with the cursor positioned correctly. A quicker way of setting or unsetting hard returns is using ALT + U. This is a toggle, that is, if there is a hard return at the end of the cursor line it is removed, if there is not, one is inserted.

In either case the cursor moves down to the next line. In this way it is an easy matter if necessary to go through a document putting hard returns where they are needed or removing them if they are unwanted.

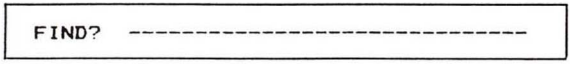
NOTE: If you need a strictly ASCII file, say for compiling a Pascal program, you must ensure that each line ends in a HARD RETURN. The ALT + U command is particularly useful for this.

TAB key

The TAB key inserts the correct number of spaces to get to the next fixed TAB position. These positions are in columns 8, 16, 24, 32, 40, 48, 56, 64 and 72 and are not changeable. The facility is for use with columns of figures or for paragraph indentation.

FIND - ALT + Q or FIND key

This command is used to find any combination of up to 30 characters. It can search for a word, a number or a string of several words. When the command is used the following appears:-



If you have used the command in error press RETURN or EXIT immediately which will get you back to editing. Otherwise type in the string to be sought and then press RETURN. The search will only find exact matches (including upper and lower case letters and spaces).

The search is conducted from the current cursor position to the end of the document. If you want to search the entire document you should press ALT + SHIFT + DOC to get to the start of the document before using the FIND key.

FIND moves the cursor to the first occurrence of the string ready for you to make any change required. See the next command if you wish to search for other occurrences of the same string of characters. If no match is found then the computer bleeps and the message "NOT FOUND!" is displayed for a few seconds before you are returned to edit mode with the cursor at the end of the document.

FIND NEXT - ALT + L

If you wish to search for the next occurrence of the string you used in the FIND command then press ALT + L. This is particularly useful if you are going through a document changing all occurrences of a particular name or word.

Saving edited text

When you have finished editing you press the EXIT key to leave the Edit Mode. On doing so you are asked:-

DO YOU WANT TO SAVE EDITED FILE?

You must answer Y or N. If you answer Y then the file is saved onto the logged on disc. If you answer N the file IS LOST FOREVER - there is no second chance, so be careful.

The file when recorded on disc will overwrite the old version of the same name. If you want to retain the old version when you have finished editing press the F7 key, give the document a new name (see Section 3) and then press EXIT to save the file under its new name.

Escape - EXIT key

The EXIT key is used to escape from various situations when in POLYWORD. In general it will take you back to where you were last. It allows you to leave menus, edit mode, directory screens etc. It is not available when questions have been posed. In these places only Y or N are valid. (For foreign languages Y, J, O, S all mean YES)

HELP

To get a summary of command keys on the screen in edit mode you can press ALT + J. When you have read it, any key will get you back to edit mode.

Special Characters

Normally you can only edit characters with ASCII codes in the range 32 - 126. Your version of Polyword will produce the UK character set.

If you want to include any of the special foreign characters in a document press the  key (in the middle of the Arrow keys). This shows you a menu of the special characters POLYWORD can handle. Enter the code for the character you require and then press Return. For example if you want to type "München" you would type

M  129 <RETURN> n c h e n

The POLYWORD Character Set

The POLYWORD/POLYPRINT character set is based on the IBM character set and so it differs from the CP/M PLUS character set. It does not have any of the line drawing characters, fractions or Greek.

The codes and character in the POLYWORD character set are:-

127 = Â	139 = ï	151 = ù	163 = ú	175 = ⌀
128 = Ç	140 = î	152 = ÿ	164 = ñ	176 = #
129 = ü	141 = ì	153 = Ö	165 = Ñ	177 = $
130 = é	142 = Ä	154 = Ü	166 = a	178 = @
131 = â	143 = Å	155 = ¢	167 = o	179 = [
132 = ä	144 = É	156 = £	168 = ¿	180 = \
133 = à	145 = æ	157 = ¥	169 = §	181 =]
134 = å	146 = Æ	158 = Pt	170 = ß	182 = ^
135 = ç	147 = ô	159 = ƒ	171 = α	183 = {
136 = ê	148 = ö	160 = á	172 = °	184 = ¦
137 = ë	149 = ò	161 = í	173 = Ø	185 = }
138 = è	150 = û	162 = ó	174 = ¨	186 = ~

SECTION 3

SPECIAL FUNCTIONS

Function keys

In Edit Mode there are five function keys available :-

F1	Print Menu	or ALT + P
F3	Disc directory	
F5	Change disc	
F7	Rename file	
F8	Delete file	

The Print Menu is discussed in section 4. This Section deals with the last four of these keys F3 - F8.

Main Menu special functions

When the POLYWORD Main Menu is displayed it appears as follows:-

```
CHOOSE FILE
DISC DIRECTORY
CHANGE DISC          A:
DELETE FILE
ESCAPE TO CP/M
```

DISC DIRECTORY, CHANGE DISC and DELETE FILE can be used either from the Main Menu or using the keys F3, F5 and F8 when editing. The Print Menu and Rename File functions can only be selected when editing.

The three functions which are common to the Main Menu and to the Edit Mode operate in the same way save for the initial way in which they are selected. When in Main Menu you select by using the Block Cursor while in the Edit Mode you press the special function key required.

Function key F3 or DISC DIRECTORY

When either key F3 is pressed or the DISC DIRECTORY option is selected from the Main Menu the directory of all files on the logged on disc is displayed on the screen. If there are more than 80 files on the disc a message saying "MORE FILES...." is displayed at the bottom of the screen and pressing any key will display the remainder.

The directory is displayed in the following format:-

```
DIRECTORY OF DISC A:                                  FREE SPACE  12K

LETTER .TXT     SALESFIG.S      UPDATE  .DOC    SPEC4.DOC
MEMO            LETTER  .317    PURCHASE.FIG    SPEC.CON
REWRITE.LET     TECHDATA.ILS    SPEC1   .DOC    SPEC-IND.CON
SPEC2  .DOC     SPEC3   .DOC    PRICES  .OLD    MEMO2
PRICES .NEW
```

At the top of the directory the free space on that disc is displayed. With such small disc capacity (112K on the RAM disc M:, and 173K on disc A:) it is important to keep an eye on the free space left on each disc. You should not edit on discs with nil Free Space.

In Edit Mode, when you have read the directory, pressing any key will return you to editing. To read the directory on another disc you must first change the logged on disc drive as explained in the following paragraph.

Function key F5 or CHANGE DISC

When you select CHANGE DISC from the Main Menu or press special function key F5 when editing the following screen message appears:-

```
ENTER DISC DRIVE YOU WANT
```

The original disc drive fitted to the AMSTRAD PCW8256 is called drive A. The RAM disc is called drive M. Additional disc drives can be added with names B to P.

You can type a letter in the range A to P as appropriate. POLYWORD will then log on to that disc and all further reading and writing of files or directories will be that disc until it is changed again.

If you type a letter out side the range A to P the following error message is displayed:-

```
ONLY DRIVES A: TO P: ARE VALID
```

If there is no disc in the drive selected or if no such disc drive is connected to your AMSTRAD the following message is displayed:-

```
DISC DRIVE NOT AVAILABLE - TRY ANOTHER
```

Function key F8 or DELETE FILE

When you select DELETE FILE from the Main Menu or press special key SHIFT + F8 when editing the following screen message appears:-

```
ENTER NAME OF FILE TO BE DELETED  ____________
                                  e.g. FILENAME.EXT
```

Pressing EXIT or RETURN before typing any character will return you to where you were. If you do wish to delete a file type its name and press RETURN. The computer searches the logged on disc for this name and if it is found the whole file is deleted and you are then returned to the Main Menu or to editing.

Once deleted the file cannot be recovered and so you must be especially careful when using this command. It is recommended that you check the directory before deleting a file to ensure giving the correct name.

If the name you have typed is not found on the logged on disc an error message is displayed and you can type in another name. To escape if you have made a mistake press EXIT or RETURN as mentioned above.

Function key F7 - RENAME FILE

The rename file function can only be used by pressing Function key F7 when in the Edit Mode. It enables you to rename the current file you are editing. The present name of the file you are editing is always shown at the top left of the screen.

On pressing key F7 the following message is displayed:-

```
ENTER NEW NAME FOR THIS FILE  ------------
                              e.g. FILENAME.TXT
```

Pressing EXIT or RETURN before typing a character will return you to editing without changing the name. Type the new name you want to give your file and then press RETURN. If the new name is already in use for another file on that disc an error message is given and you can select another name.

Remember that the rename function does not affect the file presently recorded on the disc but only the version of that file that you are presently editing. Alternatively if you are typing a new file it changes the name you originally selected for it.

You can use this function to create back-up copies of files. If you have a file called LETTER.TXT you can choose it from the main menu, use F7 to rename it LETTER.BAK and then save it on the same disc under the new name. POLYWORD does not automatically create back up files like WORDSTAR.

Copying files

In addition to creating a copy of a text file using the rename function explained above, a text file can be copied from one disc drive to another. To achieve this you select the file to be copied from the Main Menu and enter the Edit Mode. Press F5 key to change to the other disc. Now press EXIT and thereby save the file with the same name but on the new disc.

This method can only be used for text files. If you need to copy any other type of file, for example a .COM program file, then you should use the CP/M program PIP.COM. If you are not familiar with PIP you should read Appendix B of this manual.

SECTION 4

THE PRINT MENU

Function key F1 PRINT MENU - ALT + P

The Print Menu is accessed from Edit Mode by pressing Function Key F1 or by pressing ALT + P. On pressing F1 or ALT + P the following Print Menu is displayed:-

```
START PRINTING
PRINT STYLE              HIGH QUALITY
JUSTIFICATION            YES
PAUSE AFTER PAGE         NO
LEFT MARGIN              8
FORM LENGTH              66
POLYMAIL LIST
ESCAPE
```

Options are selected from this menu in the usual way using the Arrow keys to move the Block Cursor and RETURN to select.

START PRINTING

This option is selected once you have made sure all the print parameters are set to their required values and that the paper is correctly alligned in the printer.

When printing is finished the computer will bleep and you will stay in the Print Menu. Because the PCW 8256 has a 2K print buffer the computer may finish 'printing' long before the printer has physically stopped. You can if you wish continue editing whilst waiting for the printer to finish the job.

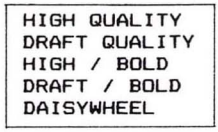
You can interupt printing using the EXIT key, but again since the PCW 8256 is printing via a print buffer the actual printing may continue for some time after the screen says

```
ESC KEY PRESSED! PRINTING ABORTED
```

This is particularly true if you are printing in HIGH QUALITY. If you are intent on truely aborting the printing without waiting for the buffer to empty then you can use the PTR key and select the RESET function from the printer 'Buttons' at the foot of the screen.

PRINT STYLE

Selecting this option displays the Print Style Menu.



Use the Block Cursor to select which of these five print styles you wish to print in. The first four options apply to the PCW 8256 dot matrix printer only. As well as the choice between High Quality and Draft Quality you can also choose normal printing or Bold - Double strike printing to give a more dense impression.

If you select the fifth option - DAISYWHEEL - then output will be sent to the parallel printer port if fitted. For details about daisywheel printers see Appendix G.

JUSTIFICATION

Choosing this option toggles the value between YES and NO. If the value is YES then all lines not ending in a hard return will be printed justified to the current maximum number of characters per line, as set by the ALT + O option. If the value is NO none of the lines are justified.

PAUSE AFTER PAGE

Choosing this option toggles the value between YES and NO. If the value is YES then at the end of each printed page the program pauses for you to place a new sheet of paper in the printer.

Because of the large print buffer the computer finishes 'printing' each page long before the printer has physically finished. For this reason the end of page message reads:-

END OF PAGE. WHEN PRINTING STOPS INSERT NEW PAGE AND PRESS RETURN

If you do not wish to continue printing you may press the EXIT key even before the printer has stopped.

If you are using continuous paper this option must be set to NO - this is the default value. If your document is less than 1 page long, then the value of this option is irrelevant.

LEFT MARGIN

This option is used to set the left hand margin on the printer. On selecting it you are invited to input the number of spaces to be used in the left margin. This number can be between 0 and 79. The default value for the left margin is 8 spaces which centres a default width line of 65 characters.

FORM LENGTH

This option is used to set the length of paper being used - this is different to the number of lines per page in the text as there is always a margin top and bottom. There are 3 common form lengths:-

66 lines	for	11 inch continuous paper
70 lines	for	A4 continuous paper
9 lines	for	continuous self-adhesive labels

The default value is 66 for 11 inch stationery. If you are using separate sheets of paper you can ignore this option.

POLYMAIL LIST

This option is used if you are printing circular letters or labels from a POLYMAIL list file. On selecting this option the following message appears:-

```
ENTER NAME OF LIST

          __________.PMD
```

If this was selected in error or you cannot find the required list you can press EXIT to abandon the list selection.

You can type in the name of the list you wish to use. This list must have previously been created by the POLYMAIL program. (See the POLYMAIL Manual). It is not necessary to enter an extention for this file name as these are automatically known to be .PMD and .PMR. If the files for the list are on a different disc drive then you can specify that in the name of the list.

For example if the current disc is A: and you wish to use a list on drive A: called CUSTOMER.PMD (and CUSTOMER.PMR - both files must be present) you would simply type

CUSTOMER<RETURN>

If there is a list on the RAM disc drive M: called SUPPLIER.PMD (and SUPPLIER.PMR) then you can access it by typing

M:SUPPLIER<RETURN>

In each case the directory of the list is displayed. The directory can have up to 100 record names in it.

It may be that you only wish to produce circular letters for some of records in the list. When the directory is displayed you can use the arrow keys to move the Block Cursor to the required records and press RETURN to place an asterisk beside those records you want. To remove an asterisk replace the Block Cursor on the record and press RETURN again.

When you have selected those records you require press EXIT to get back to the PRINT MENU.

When you START PRINTING the records selected will be read and a letter produced for each.

For more details on merge printing see the POLYMAIL manual. Also see Appendix E which discusses the simplest arrangement of files on your discs for using Polyword and Polymail together.

Printing multiple copies

If you have the Polymail program you can get Polyword to print up to 99 copies of the same document. If you are using continuous stationery you can leave the computer unattended to churn out as many copies as you want.

The way to achieve this is to use Polymail to create a list called DUMMY. In this dummy list create 99 records called 01, 02, 03, 04 .... 97, 98, 99. The Full Name field should also have 01, 02, 03 ... to match the record name.

When the list is complete leave Polymail and load Polyword. Choose the file you want printed and when it is loaded press F1 to get the Print Menu. Now select the POLYMAIL LIST option and enter the list name DUMMY. This will display the list of numbers 01, 02, 03 etc. Press the RETURN key for as many copies as you require. So if you want 30 copies use the RETURN key to put an asterisk beside the records 01 - 30. When you have done this press the EXIT key. Allign the continuous stationery in the printer and press RETURN to START PRINTING.

The program will produce as many copies as you have requested. You can abort such a print run by using the EXIT key but remember that the EXIT key will not take immediate effect because of the 2K printer buffer in the PCW 8256.

POLYPRINT

CONTENTS

SECTION 1

INTRODUCTION

The POLY series

POLYPRINT is a multiple typeface printing program. It is part of the POLY series of programs which comprises:-

POLYWORD	- The word processor
POLYPRINT	- The NLQ variable font printing program
POLYMAIL	- The mailing list program
POLYPLOT	- The dot matrix graph plotting program

All the programs in the system operate in a similar way. So once you have used one program you can at once use any of them.

If you are not familiar with the CP/M plus operating system then you should read Appendix B of this manual.

POLY Keyboard

When any of the POLY programs is run it configures the keyboard to the same pattern. By doing this POLYPRINT can use the arrow keys on the keyboard in the same way as LOCOSCRIPT.

POLYPRINT leaves the keyboard configured. If you wish to change back to the original configuration you can reset the computer by pressing SHIFT + EXTRA + EXIT together.

Menus in POLYPRINT

As in all POLY programs, POLYPRINT options are offered to you in the form of menus. When a menu is first displayed the first option is highlighted - black text on green background. This is called the Block Cursor. It can be moved by the UP and DOWN arrow keys.

To make POLYPRINT operate in the same way as WORDSTAR the Block Cursor can also be moved up by pressing ALT + E (2 keys together) and moved down by pressing ALT + X.

When the Block Cursor is on the option you require you press the RETURN key to make that selection. The last option in each menu is to ESCAPE from that menu. The same effect can be achieved by simply pressing the EXIT key. So when a menu is displayed only the following 6 keys can be used. Pressing any other key will display an error message.

[^] or ALT + E	MOVE BLOCK CURSOR UP
[v] or ALT + X	MOVE BLOCK CURSOR DOWN
RETURN	SELECT OPTION UNDER BLOCK CURSOR
EXIT	ESCAPE FROM THE MENU

Running POLY programs

To run a POLY program switch on the computer and insert a CP/M plus start of day disc (with J10CPM3.EMS FILE). When the CP/M symbol A> is showing insert the disc with the program required into the drive. The label on the disc side required must be pointing to the screen. Then type the name of the program and press the RETURN key.

e.g. for POLYPRINT A>PP<RETURN>.

POLYPRINT

Polyprint prints in up to 25 different near letter quality typefaces on normal dot matrix printers. Nine typefaces are on the Polyprint master disc. Two additional sets of eight typefaces can be purchased separately. These typefaces are all compatible with the POLYPLOT graph plotting program.

Since Locoscript is not a CP/M program it would be difficult to keep switching between POLYPRINT and LOCOSCRIPT. For this reason POLYPRINT is always supplied with the ASCII CP/M word processor POLYWORD. The POLYWORD.COM file is on side 2 of your disc.

Polyprint is a post processor. This means that a document must first be produced using a text editing program. (e.g. POLYWORD) When a document has been saved, Polyprint is loaded, the file is selected, a typeface chosen and the document is then printed.

Polyprint can produce high quality printed spreadsheets. The spreadsheet must be "printed" to disc. Polyprint is then loaded to print that .PRN file. Since spread-sheets must be in columns two special typefaces are provided for this purpose.

The typefaces and the document to be printed out must be in the computer disc drives together. They can be on the same disc or on separate discs in different drives.

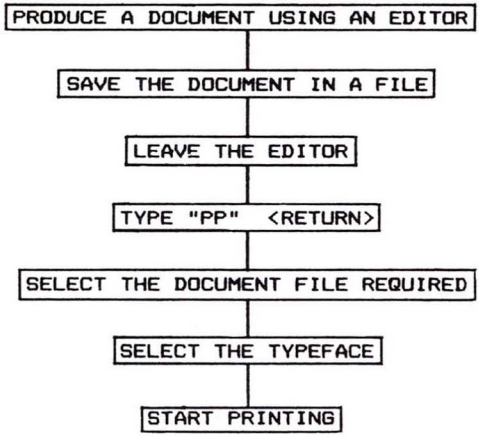
As with all computer programs never use the master Polyprint disc you are supplied with. Make a working copy of the master disc.

On the master disc are the following files:-

PP .COM	The Polyprint program
001.FNT	BODONI
003.FNT	FLASH BOLD
004.FNT	COMMERCIAL SCRIPT
005.FNT	HELVETICA LIGHT
008.FNT	BROADWAY
011.FNT	HELVETICA MEDIUM
012.FNT	BODONI ITALIC
101.FNT	COOPER BLACK (LARGE)
315.FNT	MINISCULE PRINT
READ.ME	Information

Outline use of Polyprint

The basic steps involved in using Polyprint are as follows:-



The main menu

On typing PP <RETURN> Polyprint will take a few seconds to load up and then it displays the main menu shown below.

```
                              P O L Y P R I N T
Copyright (c) ARCOM SOFTWARE 1985                              Version 1.01
Supplied by : ARCOM SOFTWARE, POOLE, DORSET, ENGLAND.

          START PRINTING

          SELECT FILE TO PRINT              NOT YET SELECTED
          SELECT TYPEFACE                   BODONI
          PAUSE BETWEEN PAGES               No
          SET PAGE FORMAT
          ESCAPE FROM POLYPRINT
```

HELP in Polyprint

If at any point you are not sure what to do next you can press "?" or ALT + J for assistance. Whenever Polyprint asks you a question in the help box at the foot of the screen, the "?" key will explain what Y means and what N means to help you decide.

Selecting files direct from CP/M

If before you load Polyprint you know which file you want to print then you can tell Polyprint which file you require while you are still in the operating system. Say, for instance, you wished to print a file called READ.ME then you would type:-

A>PP READ.ME <RETURN>

Polyprint will then load up having pre-selected that file for printing. If the default typeface is also selected this means that the only thing left to do is to START PRINTING.

If you want to select a file which is on another disc drive you can do so in the command line. If you are logged onto drive A: but READ.ME is on drive M: you can type:-

A>PP M:READ.ME <RETURN>

Simplest use of discs

The simplest way to use Polyprint is to have PP.COM, POLYWORD.COM, the file you want to print and the typefaces all on the same disc. Appendix E discusses how to achieve this.

Using Locoscript files

You can convert Locoscript files for use with Polyprint. This is described in Appendix F.

Using the Main Menu

You can choose any of the options from the main menu in any order. The details of each option are discussed in the following section. If you try to START PRINTING before you have selected a file an error message tells you what is wrong. The same thing happens if you forget to select a typeface.

SECTION 2

MAIN MENU OPTIONS

SELECT FILE TO PRINT

To select the document to be printed position the Block Cursor over the SELECT FILE TO PRINT option and press the RETURN key. A directory of the files on the disc is then displayed on the screen in alphabetical order.

Polyprint can only print normal ASCII files. So files which are obviously not printable are not displayed. This means that the Polyprint directory is uncluttered and easier to read. The files not displayed are any files ending in:-

.FNT	.HLP	.COM	.BAT
.CMD	.SYS	.EXE	.BAS

The Block Cursor is positioned on the first file name. To select the file required, use the UP, DOWN, LEFT and RIGHT arrows to position the Block Cursor onto its name and press RETURN.

Files on another disc

If the file you require is not on the logged on disc you can switch to another disc. To do this, move the Block Cursor to the top of the screen over the CHANGE TO OTHER DISC option and press RETURN. The following instruction appears in the help box :-

ENTER DISC DRIVE LETTER (A: - P:)

If you select a non-existant disc drive an error message is diplayed. Once you have selected a valid drive the directory of the files on that disc is displayed and the selection is made in the way described above.

Large file directories

The directory in Polyprint displays a maximum of 75 files. When there are more than 75 files on the directory, a question appears in the help box :-

MORE FILES ON DISC - DO YOU WANT A FILE FROM THIS PART?

If the file you want is displayed answer Y, if not answer N. This will bring the next 75 files onto the screen and so on until you find your file.

SELECT TYPEFACE

To select a typeface, position the Block Cursor on the SELECT TYPEFACE option on the main menu and press RETURN. The following instruction appears in the help box :-

(press RETURN or..) Enter typeface No. you require

If you know it, enter the number of the typeface you require (e.g. 1 for BODONI) and press RETURN. The typeface is then loaded and its name appears in the main menu.

If you do not know the number of the typeface just press the RETURN key. This causes the typeface directory for the logged on disc to be displayed. Use the Block Cursor to select the typeface you require. If the typefaces are on another disc, change to that disc as described above.

If you select one of the typefaces shown with the figures (80) following it then a further question appears in the help box :-

Do you wish to print in 80 column mode?

Answer Y for non-proportional printing or N for proportional printing. The width of the letters in these typefaces is such that 80 characters can always be printed on A4 paper. With non-proportional spacing each letter takes the same width, as in most typewriters. These typefaces must be used to print spreadsheets where columns of figures must be accurately reproduced. (See Section 3 for 160 column printing using Miniscule Print)

Default typeface

Whenever you load Polyprint typeface 1 BODONI is automatically selected. If the BODONI typeface is not on the logged on disc the following error message will appear:-

Default typeface not found. Copy to this disc the file 001.FNT

You can at this point either exit from Polyprint and use the PIP program to copy the FNT file onto that disc, or you can ignore the message and choose another typeface. If you are unfamiliar with the PIP program, read Appendix B at the back of this manual.

PAUSE BETWEEN PAGES

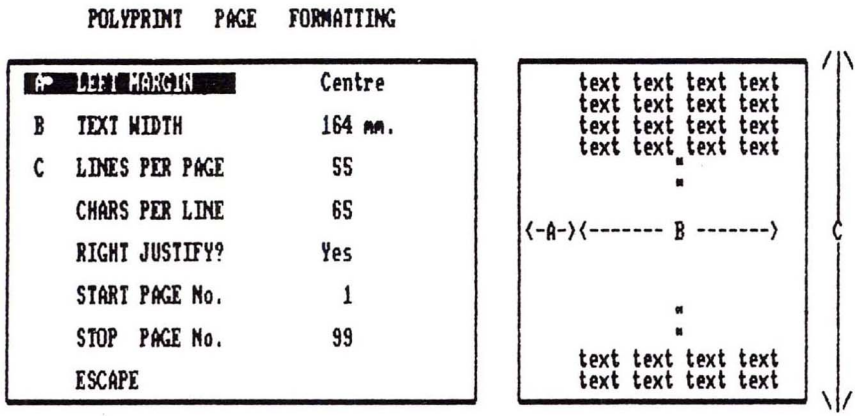
This option is available for printing multi-page documents when you are using cut sheet paper. When you select the option using the following question appears in the help box:-

DO YOU WANT A PAUSE AT THE END OF EACH PRINTED PAGE?

Answer the question by typing Y or N.

SET PAGE FORMAT

If you wish to change the format of the printed page put the Block Cursor in the main menu on to the SET PAGE FORMAT option and press RETURN. The following menu is displayed :-



The Block on the right of the screen represents the printed page and shows what options A, B, and C in the menu refer to. The menu works in the usual way with the Block Cursor moved by the arrow keys and the option selected by the RETURN key.

The default values for this menu are the same as the defaults for POLYWORD - that is 55 lines per page and 65 characters per line.

(a) LEFT MARGIN
When this selection is made the following instruction appears in the help box :-

Enter the width of the left margin required in mm

The number you enter will be the distance in millimeters from print position zero on the printer. Most printers have a scale bar with a mark at the left most print position. The left margin on paper will depend on where the left hand edge of the paper is relative to this mark.

If the sum of LEFT MARGIN and TEXT WIDTH exceeds the width of the printer an error messages is displayed and the LEFT MARGIN defaults to CENTRE. If you print in 80 column mode the left margin is always set to zero regardless of the value displayed in this menu.

(b) TEXT WIDTH
When this selection is made the following instruction appears in the help box :-

Enter the width that the text should be justified to (in mm.)

The value you enter here will override the calculated TEXT WIDTH. Note : The TEXT WIDTH will change if you alter CHARS PER LINE or if you select another typeface.

The text width is not set until a typeface is selected. It is calculated as follows :-

TEXT WIDTH = CHARS PER LINE x AVERAGE CHARARACTER WIDTH

Obviously the AVERAGE CHARACTER WIDTH will depend upon the typeface. It is based on the expected average use of capital letters and the frequency of the use of letters in the alphabet.

In rare cases, where you use all capitals or where you use a lot of w's, m's or underline characters, it is possible that the line of text as typed may not fit into the TEXT WIDTH set. If this occurs printing continues beyond the right hand margin and the following warning message is displayed :-

JUSTIFICATION WIDTH IS TOO NARROW FOR THIS TEXT

If the text is so wide that it would actually fall off the edge of the paper then the printing is aborted with the following message:-

PRINTING ABORTED FILE CONTAINS A LINE WHICH IS WIDER THAN THE PRINTER

In this case you can either increase the TEXT WIDTH value and try again, use a narrower typeface or re-edit the document to have shorter line lengths.

It is sometimes possible to request the impossible in Polyprint. For instance you could ask for 80 characters per line in Cooper Black. Such a line would be about 300mm wide. Since your printer is only 203mm wide it cannot be done.

If you want an 80 column document it is probably better to use one of the narrow fonts in 80 column mode. In 80 column mode the value of TEXT WIDTH is ignored and Polyprint does no justification.

(c) LINES PER PAGE
When this selection is made the following instruction appears in the help box:-

Enter the number of lines per page

The number you enter should be the same as the lines per page you used when you typed the document in Polyword. All typefaces in Polyprint are set to a pitch of 6 lines to the inch save for those marked "Large" which are at 3 to the inch. This allows a maximum of 66 or 33 lines respectively on an A4 page. However with a top and bottom margin 55 is a more realistic limit when using normal sized typeface. A warning is given if you exceed this limit.

(d) CHARS PER LINE
When you make this selection the following instruction appears in the help box:-

Enter the maximum number of characters per line in this file

Again you should enter the number that you have used in the text editing program and press RETURN. If you alter CHARS PER LINE the TEXT WIDTH will automatically change accordingly.

(e) RIGHT JUSTIFY?
When you make this selection the following question appears in the help box:-

Do you want print to be right justified?

If you answer Y then all the lines will be padded out with microspaces to appear the same length. If you answer N all the lines will have different lengths as the printing is proportional. Section 3 discusses when justifying is done.

(f) START AT PAGE NO.
(g) STOP AFTER PAGE NO.
Together these two options can be used to print individual pages or groups of pages from a longer document. For example if you set Start Page to 4 and Stop Page to 4 then only page 4 will be printed. The maximum page number is 99. A Stop Page of 99 means print to the end of the document.

(h) ESCAPE
Selecting this option returns you to the main menu. The same effect can be achieved by pressing the EXIT key.

START PRINTING

When you have set all the necessary options you can start printing by selecting the START PRINTING option in the main menu and pressing the RETURN key.

Before doing so you must check that the printer is on-line and that the paper is in the correct position.

Interrupting printing

Printing can be interrupted using the EXIT key but the printer must be allowed to finish the currrent line. This might mean that 4 passes of the print head occur before your EXIT command is obeyed. You must never switch off the printer whilst printing is in progress since it will cause the printer to drop out of graphics mode and it will hang the program. When you switch the printer back on you may get thousands of bytes of rubbish (including form feeds). The only way to recover is either to wait until the end of the next line (which might be 4000 bytes away) or to reset the computer.

ESCAPE FROM POLYPRINT

To exit from Polyprint to the operating system either select the ESCAPE option and press the RETURN key or just press the EXIT key.

SECTION 3

FORMATTING AND POLYPRINT FILES

Polyprint formatting commands

To help with layout and presentation Polyprint has 7 formatting commands which can be typed into the file to be printed. They must be the first items in the line. The 7 commands are:-

*C	Centre this line	
*U	Underline this line	
*W	Print this line double Width	
*P	Turn to a new page	
*Tn	Switch to typeface n	(n = 1 - 999)
*Ln	Set Left Margin to n mm.	(n = 1 - 200)
*Jn	Justify Text to n mm.	(n = 1 - 203)

All the commands can be in upper or lower case except that *t has a particular meaning : Switch to typeface n in 80 column mode.

*CUW commands

With the *C *U and *W commands at least one space must preceed the text on the line. The commands can be used in any combination. Thus:-

*CU	Means Centred Underlined
*CW	Means Centred double Width
*UW	Means Underlined double Width

The three commands can be use together e.g. *CUW *wcu *uwc *ucw *wuc *cwu. All these mean the same thing - Centered Underlined double Width text. In 80 column mode the *C and *W commands do not work, because the printed page is an exact copy of the file, but you can use *U for underlining.

*C Centred lines

If a line starts with a *C centring command the text is positioned so as to be in the centre of the TEXT WIDTH. This may or may not be in the centre of the paper since the LEFT MARGIN will determine where on the page the text as a whole is positioned.

*U Underlined lines

If a line starts with a *U underlining command the entire text on that line will be underlined. The underline is one dot thick and should not effect the vertical pitch very much.

*W Double Width lines

If a line starts with a *W double width command it will be printed by expanding it horizontally by a factor of two. Please note that if you are printing double width the maximum number of characters you can use is effectively halved. This facility is intended for bold headings.

*TLJ Commands

As with the *C *U and *W commands the *P *T *L and *J must be the first item on the line. However unlike those commands there should be no text on any line starting with *P or *T or *L or *J. The effect of a *T *L or *J command lasts until the next TLJ switch is encountered.

When POLYPRINT is printing, these commands are interpretted and the lines themselves are not printed. If these commands are used they will effect the counting of lines per page. For this reason, if any of them are used then it is probably better to explicitly insert *P page turns rather than rely on the automatic page turning after a certain number of lines.

The *P command can only be used on its own, but the *T *L *J commands can be used alone or in combinations. For example:-

- *T4 Switch to Commercial Script
- *T3L10 Switch to Flash Bold, Set Left Margin to 10mm.
- *T8J190 Switch to Broadway, Justify text to width of 190mm.
- *T8L20J130 Switch to Broadway, Left Marg. 20mm. Justify 130mm
- *L40 Set Left Margin to 40mm.
- *L1J202 Set Left Margin to 1mm. and Justify to 202mm wide.
- *J150 Set Justification width to 150mm.

Unlike the *CUW *UWC *WUC commands the order is important. You may only use commands in the order *TnLnJn. *LnJnTn or *JnLn are illegal. The letters L and J can be upper or lower case and there must be no spaces inbedded in the command.

Before printing you must select a main typeface even if you have a *T switch at the start of the file. Also the SET PAGE FORMAT menu can be used to set the original text width and the original left margin. If you want to return to any of these starting values there are 3 special commands:-

*T0 Switch back to Main Typeface
*L0 Switch back to original Left Margin
*J0 Switch back to original Justification width

There are three other special cases for these commands:-

*LC	Set Left Margin to Centre Text (at Current J width)
*JN	Switch off Right Justification
*TnJA	Switch to typeface n and reset Justification width Automatically to CHARS PER LINE x Average char width.

If a typeface can be used in 80 Column Mode it can be selected using a lower case *t switch thus:-

- *T5 Means switch to Helvetica Light

but

- *t5 Means switch to Helvetica Light in 80 Column Mode.

You are reminded however that in 80 column mode the Left Margin and Justfication Width have no effect and text is printed from column 1 of the printer.

Miniscule Print (Typeface 315) is a special small typeface. If you choose 80 column mode for this typeface it actually prints 160 characters per line across the page. This is especially useful for printing wide spreadsheets.

During Printing

While POLYPRINT is printing a monitor on the screen tells you the current values for the various parameters. As *T *L and *J switches are encountered you can watch these values change. You can also monitor any error conditions which might arise. For instance if you select a typeface which does not exist or is not on the logged on disc the following message appears:-

```
TYPEFACE NOT FOUND - COPY TO THIS DISC THE FILE 089.FNT
```

The *T *L and *J commands give you complete freedom to set text widths margins and typefaces, but be aware that with that freedom you can easily request impossible combinations. POLYPRINT does its best to carry out your requests but in some cases it has to give up.

ASCII files

When Polyprint reads a file to be printed it is expecting a certain format, namely a normal ASCII file. (ASCII stands for the American Standard Code for Information Interchange). This is why in some cases (e.g. spreadsheets) you must first print the document to the disc to convert to ASCII format. An ASCII file is lines of text separated by a Carriage Return character and a Line Feed character. Any control code characters (less than a space) are ignored.

Files produced by POLYWORD are automatically compatible with POLYPRINT. If you want to use a LOCOSCRIPT file with Polyprint you must opt to store the file specially in ASCII format. This procedure is described in Appendix F at the back of this manual.

Polyprint Character Set

Polyprint can print all the normal English characters in the range 32 - 126. In addition it can print many foreign characters in the range 128 - 186. The character set is based on the IBM set except it does not have any line drawing characters, any Greek or any fractions.

The foreign characters are listed in Appendix D.

Justification

In Polyword word wrapping is automatic. This means that when you type beyond the right hand margin a new line is created and the word you are typing is put at the beginning of that line. The line you were typing on ends with what is called a "Soft Return" - that is one you did not insert using the RETURN key.

Polyprint uses soft returns to trigger justification. A soft return is taken to be the end of a line that must be justified to the value in TEXT WIDTH (see section 2). A "Hard Return" - that is one you inserted using the RETURN key - is taken as the end of a line in which the text is not to be justified.

The ALT + U function is provided in POLYWORD to convert hard returns to soft returns or vice versa.

You can of course stop all justification using the option in the PAGE FORMAT MENU.

Proportional spacing problems

Printing with proportional spacing presents a number of problems not normally encountered in 80 column printing. However the benefits are considerable - proportionally spaced text is easier to read and looks more like type setting than the usual low quality dot matrix output.

The main problem is that you cannot produce columns of text or figures and you cannot produce a left hand justified margin if there is anything but spaces preceeding each line. Also if you use underline characters they will probably end up a different length to the text you are trying to underline.

If you want to produce columns of figures or columns of text then you should use typefaces 5, 9, 15, 315 or 103 in 80 column mode.

POLYMAIL

CONTENTS

SECTION 1

INTRODUCTION

Introduction

POLYMAIL is a program for the AMSTRAD PCW 8256 used for editing lists of names and addresses for the production of circular letters. It is part of the POLY series of programs which comprises:-

POLYWORD	- The word processor
POLYPRINT	- The NLQ variable font printing program
POLYMAIL	- The mailing list program
POLYPLOT	- The dot matrix graph plotting program

All the programs in the system operate in a similar way. So once you have mastered one program you can at once use any of the other programs.

POLY Keyboard

When any of the POLY programs is run it configures the keyboard to the same pattern. By doing this POLYMAIL can use most of the keys on the right hand side of the keyboard in the same way as LOCOSCRIPT. This means that when moving from LOCOSCRIPT to POLYMAIL you do not have to change your editing technique. In addition, you can operate POLYMAIL using the same keys as in WORDSTAR - the world's most popular word processing system.

POLYWORD leaves the keyboard configured. If you wish to change back to the original configuration you can reset the computer by pressing SHIFT + EXTRA + EXIT together.

Menus in POLYMAIL

As in all POLY programs, POLYMAIL options are offered to you in the form of menus. When a menu is first displayed the first option is highlighted - black text on green background. This is called the Block Cursor. It can be moved by the UP and DOWN arrow keys.

To make POLYMAIL operate in the same way as WORDSTAR the Block Cursor can also be moved up by pressing ALT + E (2 keys together) and moved down by pressing ALT + X.

When the Block Cursor is on the option you require you press the RETURN key to make that selection. The last option in each menu is to ESCAPE from that menu. The same effect can be achieved by simply pressing the EXIT key.

So when a menu is displayed only the following 6 keys can be used. Pressing any other key will display an error message.

↑ or ALT + E	MOVE BLOCK CURSOR UP
↓ or ALT + X	MOVE BLOCK CURSOR DOWN
RETURN	SELECT OPTION UNDER BLOCK CURSOR
EXIT	ESCAPE FROM THE MENU

ALT key

The ALT key at the bottom left of the keyboard is used to perform special functions especially during editing in POLYMAIL. It is used by depressing it and then - at the same time - pressing one other key (A - Z). In this manual when you see ALT + Y it means press the ALT key and the Y key at the same time.

The POLYMAIL system

The POLYMAIL system comprises two programs:-

(a) POLYMAIL

The POLYMAIL program is used to create and amend lists of addressee records. The records are automatically maintained in alphabetical order and each list can contain up to 100 addressee records.

(b) POLYWORD

POLYWORD program is the word processor program in the POLY series. It is used to create or select the document to be sent and also the list of addressees it is to be sent to. It also does the merge-printing to produce a letter for each addressee.

Outline method of use

The overall method of use of the system is as follows:-

(a) The circular letter is created in a file using POLYWORD in the usual way. Those elements in the letter which differ for each addressee are marked by the symbols &A through to &L.

(b) Lists of addressee records are created separately using the POLYMAIL program.

(c) The POLYWORD program is used to merge-print a letter for each of the required addressees.

(d) If window envelopes are not being used the POLYWORD program is used to produce sticky address labels for the same set of addressees.

(e) Each envelope is filled and, if appropriate, the corresponding label is stuck on the outside.

Running POLYMAIL

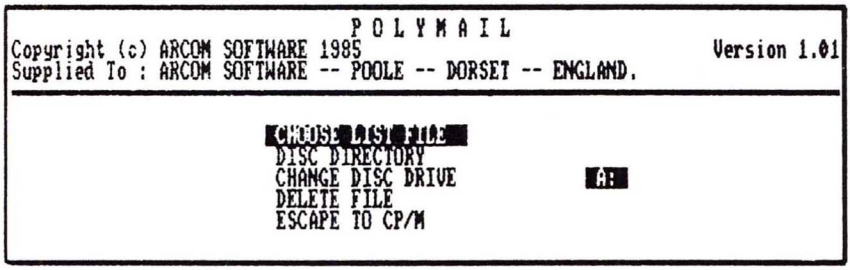
To run POLYMAIL switch on the computer and insert a CP/M plus start of day disc (with J10CPM3.EMS FILE). When the CP/M symbol A> is showing insert the POLYMAIL disc into drive A and type:-

A>POLYMAIL <RETURN>

If you are unfamiliar with the CP/M operating system then you should read Appendix B at the back of this manual. You should also read Appendix E which explains the simplest arrangement of files for using Polymail with Polyword.

Main Menu functions

When the POLYMAIL Main Menu is displayed it appears as follows:-



The Main Menu functions DISC DIRECTORY, CHANGE DISC and DELETE FILE operate in exactly the same way as they do in POLYWORD. They are described below. The main function CHOOSE LIST is described in full in Section 2.

DISC DIRECTORY

When the DISC DIRECTORY option is selected from the Main Menu the directory of all files on the logged on disc is displayed.

At the top of the directory the free space on that disc is displayed. With such small disc capacity (112K on the RAM disc M:, and 173K on disc A:) it is important to keep an eye on the free space left on each disc. You can not create new lists on discs with less than 40k Free Space.

CHANGE DISC

When you select CHANGE DISC from the Main Menu the following screen message appears:-

```
ENTER DISC DRIVE YOU WANT
```

The original disc drive fitted to the AMSTRAD PCW8256 is called drive A. The RAM disc is called drive M. Additional disc drives can be added with names B to P.

You can type a letter in the range A to P as appropriate. POLYMAIL will then log on to that disc and all further reading and writing of files or directories will be that disc until it is changed again.

If you type a letter out side the range A to P the following error message is displayed:-

```
ONLY DRIVES A: TO P: ARE VALID
```

If there is no disc in the drive selected or if no such disc drive is connected to your AMSTRAD the following message is displayed:-

```
DISC DRIVE NOT AVAILABLE - TRY ANOTHER
```

DELETE FILE

When you select DELETE FILE from the Main Menu the following screen message appears:-

```
ENTER NAME OF FILE TO BE DELETED      ------------
                                   e.g. FILENAME.EXT
```

Pressing EXIT or RETURN before typing any character will return you to the Main Menu. If you do wish to delete a file type its name and press RETURN. The computer searches the logged on disc for this name and if it is found the whole file is deleted and you are then returned to the Main Menu or to editing.

Once deleted the file cannot be recovered and so you must be especially careful when using this command. It is recommended that you check the directory before deleting a file to ensure giving the correct name.

If the name you have typed is not found on the logged on disc an error message is displayed and you can type in another name. To escape if you have made a mistake press EXIT or RETURN as mentioned above.

SECTION 2

USING POLYMAIL

General

A list can contain up to a maximum of 100 addressees. Any number of lists can be created on a POLYMAIL disc but this is subject to the capacity of the disc.

The record for each addressee takes 400 bytes and therefore with an available 173K on a single AMSTRAD 8256 disc an overall total of about 400 address records can be stored on an otherwise empty disc.

Each list has to be given a name when it is created. This may be any combination of letters and figures up to a maximum 8 characters. (e.g. LISTNAME). On naming a new list 2 new files are created automatically on the disc (e.g. LISTNAME.PMR and LISTNAME.PMD). PMR stands for PolyMail Records and PMD stands for PolyMail Directory.

These two files must not be separated. So if you wish to copy a list to another disc you must copy both of the files concerned. Also you should never erase either of these file unless you are sure that the list is empty or that none of the records are required. If you do erase a list, be sure to erase both PMR and PMD files.

Running POLYMAIL

To create or alter a list of addressee records insert the POLYMAIL program disc into drive A, type POLYMAIL and then hit the RETURN key. The Main Menu is displayed as shown on Page 3.

The Main Menu in POLYMAIL operates in the usual way - you move the Block Cursor using the UP and DOWN arrow keys and press RETURN to select the required option. The EXIT key will return you to the operating system CP/M.

Choosing a list

On selecting the first option from the Main Menu the following screen is displayed:-

```
ENTER NAME OF LIST      (8 letters only)    --------.PMR
                                              e.g. FILENAME
```

Pressing EXIT or RETURN immediately will get you back to the Main Menu. If you do wish to choose a list, type its name and press RETURN. The extention .PMR is automatically used so you need only type the first 8 letters of the list file name.

CP/M file names

The following characters CANNOT be used in CP/M filenames:-

< > . , ; : = ? * [ ] % | ( ) / \

POLYMAIL will trap illegal characters and give an error message.

New lists and old lists

When choosing a list to edit you are asked to type in the list name. If the file name is a legal CP/M name the current disc is searched to see if such a list exists. If the list does exist it is loaded and you are presented with the Record Directory Page. If the file does not already exist on the current disc then the following question is posed:-

LIST NOT FOUND - CREATE A NEW LIST?

You must answer this question Y or N. N will take you back to the Main Menu to try again. Y will create a new list with that name.

(Note : All questions in POLYMAIL can be answered J=Ja, O=Oui, or S=Si as well as Y=Yes)

After typing the list name press the RETURN key and you are presented with the record directory page for that list.

Record directory page

The record directory page is a list of all the records in a particular list. The record titles are displayed in alphabetical order going down the screen. If there are more than 25 records in the list then a second column is displayed to the right.

Initially the Block Cursor is on the CREATE A RECORD option at the top of the screen. The UP and DOWN arrows can be used to move the Block Cursor to the record title required. If there are two or more columns displayed then the RIGHT and LEFT arrows can be used to move between the columns.

To select a particular record, place the Block Cursor on the record title by using the arrow keys and press the RETURN key. This displays the details for that record.

To escape from a record to the record directory or to escape from the record directory page to the POLYMAIL Main Menu you press the EXIT key.

Creating a record

When a record directory page is displayed, a new record can be inserted into the list by placing the Block Cursor on the CREATE A RECORD option and pressing the RETURN key. This displays the following message:-

```
What is the title of this new record? --------------------
```

You then type the title you want for this new record which may consist of any combination of 20 letters, figures, spaces or punctuation marks. You should note that this title will be sorted into alphabetical order with the other records in the list. So if you are using the addressees' names as the key for your list then it might be better to call the record 'SMITH, JOHN' rather than 'JOHN SMITH'.

Alternatively you can arrange for the records to be in date order by having the date as the first element of the title. In this case the month must come before the day if they are to be sorted correctly in date order.

e.g. 01/31 SMITH, JOHN = 31 January John Smith

When the title has been inserted pressing the RETURN key causes a blank format for the new record to be displayed.

Completion of an address record

On creating a new record the following blank format is displayed.

```
Record name:    SMITH, JOHN---------

FULL NAME:      ------------------------------  &A

COMPANY  :      ------------------------------  &B

ADDRESS  :      ------------------------------  &C
                ------------------------------  &D
                ------------------------------  &E
                ------------------------------  &F
                ------------------------------  &G

DEAR (....):    ------------------------------  &H

MISC 1:         ------------------------------  &I
MISC 2:         ------------------------------  &J
MISC 3:         ------------------------------  &K
MISC 4:         ------------------------------  &L
```

The elements are marked &A to &L. They are included in a circular letter by just placing the appropriate marker &A, &B etc. at the place you require.

On the left hand side of the format are titles suggesting what the line elements might be used for. You could use all 12 line elements arbitrarily if you desired. The suggested uses are now discussed in detail.

(a) RECORD TITLE: This may consist of any combination of 20 characters and should be made as self-evident as possible to allow easy identification within the list. A company name is an obvious example.

(b) FULL NAME: The full formal name of the personal contact relating to the record can be inserted here. If required this can then appear above the company name and address in any circular letter. A maximum of 30 characters is allowed for this and each subsequent element in the format.

(c) COMPANY: This allows a company name to be inserted.

(d) ADDRESS: The next 5 lines are devoted to the address element to which the circular letter is to be sent. It is not compulsory to use all 5 lines but if any of the records have 5 address lines you should use the labels &C to &G in your circular letter. The blank address lines in some records will then be ignored.

(e) DEAR (...): This is the salutation element for the letter and it will depend on the relationship with the addressee. In some records the formal 'Dear Sirs' may be used while in another 'Dear Bill' might be more appropriate. The "Dear" should be part of the circular letter in the form "Dear &H". A comma should be put into the record following the name if that is required.

If you wish to have the same salutation for all addressees, such as 'Dear Sir or Madam', then put the salutation as part of the letter and do not use 'Dear &H' to select the element in individual records.

(f) MISC 1 - MISC 4: These four elements can be used within a letter as required. As examples one might be used to record the addressees own reference. Another could be used to vary the attestation from 'Yours faithfully' to more informal words for some addressees.

POLYMAIL could be used to prepare statements for overdue accounts. The name and address of the customer are inserted in the normal way. But one of the MISC fields is used for the statement number or the "Statement To:" date and another for the amount due.

Editing facilities for records

When a record format is displayed, either for creating a new record or altering an existing one, the normal editing functions are available. These are compatible with those in POLYWORD.

The editing functions are as follows:-

^	or	ALT + E	Move cursor up 1 line
v	or	ALT + X	Move cursor down 1 line
<	or	ALT + S	Move cursor left 1 character
>	or	ALT + D	Move cursor right 1 character
CAN, <--DEL	or	ALT + H	Delete Character to left
DEL-->	or	ALT + G	Delete Character under cursor
SHIFT + CUT	or	ALT + Y	Delete Line
		ALT + V	INSERT / OVERWRITE Mode
PAGE			Move forward 1 record
ALT + PAGE			Move back 1 record
SHIFT + F8			Delete record
▦			Special foreign characters

When the record has been completed press the EXIT key. If no changes have been made the record directory is redisplayed immediately. If there are changes then you are asked if you wish to store the altered record. Answer Y to store it. Answer N to discard it..

PAGE and ALT + PAGE can be used to get to the succeeding or preceeding records in the list without the need to go back via the record directory page. If you are on the last record in the list then using FORWARD PAGE will get you back to the record directory page. If you have made any alterations to a record then before going to the next record you will be asked if you wish to store the new details.

INSERT mode

In this mode any text you type will be inserted into a line and text to the right of the cursor is shifted to the right to make room for the new letters.

e.g. BAT Typing 'E' over the 'A' gives BEAT

OVERWRITE mode

In this mode any text you type will overtype the text under the cursor.

e.g. BAT Typing 'E' over the 'A' gives BET

To change the editing mode from INSERT to OVERWRITE or vice versa use ALT + V. POLYMAIL always starts in INSERT mode. The current mode is displayed at the top of the screen.

Deleting a record

To delete an existing record it is first chosen and displayed as explained above. When you have it displayed on the screen press SHIFT + F8. This poses the following question:-

ARE YOU SURE YOU WANT TO DELETE THIS RECORD?

Answering Y deletes the record and the program then returns to the record directory page which no longer contains the name of the deleted record.

Renaming records

Whilst editing a record you can use the UP arrow to bring the cursor into the record title box. If you change this name then when you EXIT and confirm that you wish to store that record the following question is posed:-

RECORD TITLE CHANGED - KEEP THE OLD RECORD?

If you answer Y then a new record is created under the new name - this is a way of duplicating records. If you reply N then the old record will be overwritten by this new record and the new name will be resorted into its correct place in the directory.

Printing lists

If you require a printout of the entire contents of a list you can use the POLYWORD program. Prepare a label pro-forma document consisting of all the markers &A to &L on successive lines. Remember to set the length of the "label" to 13 or more. (13 gives a 1 line gap between labels).

Printing on normal continuous paper, you will get a printout for each record in the list. Such a dump of the entire list would normally be done just as a hard copy check of the data.

Special Characters

Normally you can only edit characters with ASCII codes in the range 32 - 126. Your version of POLYMAIL will produce the UK character set.

If you want to include any of the special foreign characters in a document press the ▦ key (in the middle of the Arrow keys). This shows you a menu of the special characters POLYMAIL can handle. Enter the code for the character you require and then press Return. For example if you want to type "München" you would type

M ▦ 129 <RETURN> n c h e n

The characters are listed on page 10 of the POLYWORD Manual.

SECTION 3

THE CIRCULAR LETTER

Creating the circular letter

The circular letter is created as a text file using POLYWORD in the normal way.

It is strongly recommended that circular letters should not exceed one page, with any further information included as enclosures. This enables enclosures to be printed or photocopied which is more cost effective in terms of time and money.

Inserting changeable elements

Variable elements in the circular letter are inserted by using the appropriate markers &A, &B, &C etc. Please be sure to use the capital of the letters required. As will be seen from the record format in section 2 each line in the addressees record is marked with the symbols &A to &L.

When the circular letter is printed the document is scanned for merge-print markers. If an "&A" marker is found then it is replaced by the contents of the 'Full Name' line from each record in turn. The first letter of the 'Full Name' will be printed in the position of the "&" sign.

When the merge-printing is carried out only the data from each record is substituted into the circular letter prior to printing. Thus if the full name in one record is 'Mr J. Smith' then only 11 characters will be substituted. However it is recommended that a full 30 character gap be left in the circular letter for any inserted text and thus allow for any record to have the full amount possible. If such a gap is not left then there is a possibility that a long insertion will overtype the text following the marker "&A".

An example circular letter

Below is an example of a circular letter prepared and printed by POLYWORD on the PCW 8256.

```
&A

&B
&C
&D
&E
&F
&G


1 January 1986


Dear &H

We are pleased to tell you that our new catelogue is
now ready and that, as a valued client, we shall very
shortly be sending you a copy free of charge.

Throughout the month of February we shall be having a
clearance sale with reductions of up to 20% on certain
items.  We hope that you will be able to come along to
the showrooms to take advantage of these generous
special offers.

Please do not hesitate to ring us if you have any
queries.


Yours sincerely



Peter Wilkinson

(Sales Manager)
```


An example merge-printed letter

Below is an example of the same circular letter after it has been merge-printed by POLYWORD on the PCW 8256.

Mr Stephen J. Preston

Acme Services Ltd.
Kingsland House
275 - 279 Stavordale Road
West Tiverton
Surrey
ENGLAND SY12 6DF

1 January 1986

Dear Mr Preston,

We are pleased to tell you that our new catelogue is now ready and that, as a valued client, we shall very shortly be sending you a copy free of charge.

Throughout the month of February we shall be having a clearance sale with reductions of up to 20% on certain items. We hope that you will be able to come along to the showrooms to take advantage of these generous special offers.

Please do not hesitate to ring us if you have any queries.

Yours sincerely

Peter Wilkinson

(Sales Manager)

Points to note on inserts

Some care is needed when preparing a circular letter. The following points, which are not immediately obvious when you are editing the letter, should be borne in mind.

(a) An insert marker, (e.g. &A) should be followed by 29 spaces to avoid any clash between the original text and the inserted text. (This rule might be disregarded if you know that all the records to be merged have a short element on a particular line, for instance a post code).

(b) An insert marker should not be placed too close to the right hand edge of the document since a long insert may fall off the edge of the document.

(c) If you are using window envelopes you will need to find the exact position for the name and address by a certain amount of trial and error. It is fairly easy to arrange that when the letter is folded the name and address falls exactly into the window.

Standard circular letters

If you send a lot of circular letters then it may be more efficient to keep a standard circular letter pro-forma document on file. This means that all the elements such as the name, address, salutation, date and the attestation will have been set in their correct place so that you will not need to do trial prints to guarantee the layout of the letter. All that you need to alter are the actual contents of the letter and the date. When you save the document you can rename it and so leave the pro-forma letter unchanged.

Cost

It must be emphasised that the cost of producing and despatching a large number of circular letters can be substantial. For this reason it is strongly recommended that the letter is checked for errors at two stages.

Firstly, after the letter has been typed in POLYWORD, the letter should be printed out. This printout will show the actual markers (&A, &B etc.) where the inserts will be when the letter is merge-printed. Any typographical errors or layout errors can be corrected at this stage.

Secondly, when you have started merge-printing in POLYWORD, pause after printing the first letter for a final check. In particular check the position of the address if you are using window envelopes. If all is well you can allow the print to continue at speed. If anything is wrong it is better to re-edit at this stage rather than after you have printed out dozens of letters.

SECTION 4

MERGE-PRINTING

Merge-Printing in POLYWORD

When the circular letter has been prepared and the list of addressees has been checked and brought up to date the next step is to print out the individual letters to be sent.

To do this you use the POLYWORD program. If you are unfamiliar with POLYWORD read the separate POLYWORD manual.

If disc space will allow then it is easiest if the circular letter and the list of names and addresses are on the same disc. If this proves impossible then you should have POLYWORD and the circular letter on disc drive A and then you can access the list file on another disc such as M or B or C etc.

Basic procedure

In order to produce a set of merge-printed letters from a given list and circular letter use the following procedure:-

(a) Run POLYWORD in drive A.
(b) Choose file containing the circular letter.
(c) Check contents and layout of letter - edit if necessary.
(d) Press F1 to display Print Menu
(e) Set Print style, Justfication, Page pause etc.
(f) Choose list of names
(g) Select those record which require a circular letter.
(h) START PRINTING - check the first merged letter.
(i) Print out the remaining letters.

Function key F1 PRINT MENU - ALT + P

The Print Menu is accessed from Edit Mode in POLYWORD by pressing Function Key F1 or by pressing ALT + P. On pressing F1 or ALT + P the following Print Menu is displayed:-

```
START PRINTING
PRINT STYLE              HIGH QUALITY
JUSTIFICATION            YES
PAUSE AFTER PAGE         NO
LEFT MARGIN              8
FORM LENGTH              66
POLYMAIL LIST
ESCAPE
```


Options are selected from this menu in the usual way using the Arrow keys to move the Block Cursor and RETURN to select.

START PRINTING

This option is selected once you have made sure all the print parameters are set to their required values and that the paper is correctly alligned in the printer.

When printing is finished the computer will bleep and you will stay in the Print Menu. Because the PCW 8256 has a 2K print buffer the computer may finish 'printing' long before the printer has physically stopped. You can if you wish continue editing whilst waiting for the printer to finish the job.

You can interrupt printing using the EXIT key, but again since the PCW 8256 is printing via a print buffer the actual printing may continue for some time after the screen says

```
ESC KEY PRESSED! PRINTING ABORTED
```

This is particularly true if you are printing in HIGH QUALITY. If you are intent on aborting the printing without waiting for the buffer to empty then you can use the PTR key and select the RESET function from the printer 'Buttons' at the foot of the screen.

PRINT STYLE

Selecting this option displays the Print Style Menu.

```
HIGH QUALITY
DRAFT QUALITY
HIGH / BOLD
DRAFT / BOLD
DAISYWHEEL
```

Use the Block Cursor to select which of these five print styles you wish to print in. The first four options apply to the PCW 8256 dot matrix printer only. As well as the choice between High Quality and Draft Quality you can also choose normal printing or Bold - Double strike printing to give a more dense impression.

If you select the fifth option - DAISYWHEEL - then output will be sent to the parallel printer port, if fitted. For details about daisywheel printers see Appendix G. You can use a daisywheel for merge printing but their friction feed is usually not accurate enough to do labels on continuous stationery.

JUSTIFICATION

Choosing this option toggles the value between YES and NO. If the value is YES then all lines not ending in a hard return will be printed justified to the current maximum number of characters per line, as set by the ALT + O option. If the value is NO none of the lines are justified.

PAUSE AFTER PAGE

Choosing this option toggles the value between YES and NO. If the value is YES then at the end of each printed page the program pauses for you to place a new sheet of paper in the printer.

Because of the large print buffer the computer finishes 'printing' each page long before the printer has physically finished. For this reason the end of page message reads:-

END OF PAGE. WHEN PRINTING STOPS INSERT NEW PAGE AND PRESS RETURN

If you do not wish to continue printing you may press the EXIT key even before the printer has stopped.

If you are using continuous paper this option must be set to NO - this is the default value. If your document is less than 1 page long, then the value of this option is irrelevant.

LEFT MARGIN

This option is used to set the left hand margin on the printer. On selecting it you are invited to input the number of spaces to be used in the left margin. This number can be between 0 and 79. The default value for the left margin is 8 spaces which centres a default width line of 65 characters.

FORM LENGTH

This option is used to set the length of paper being used - this is different to the number of lines per page in the text as there is always a margin top and bottom. There are 3 common form lengths:-

66 lines	for	11 inch continuous paper
70 lines	for	A4 continuous paper
9 lines	for	continuous self-adhesive labels

The default value is 66 for 11 inch stationery. If you are using separate sheets of paper you can ignore this option.

POLYMAIL LIST

This option is used to choose which list of names you wish to use to produce the circular letters or labels. On selecting this option the following message appears:-

ENTER NAME OF LIST --------.PMD

If this was selected in error or you cannot find the required list you can press EXIT to abandon the list selection.

You can type in the name of the list you wish to use. It is not necessary to enter an extention for this file name as these are automatically known to be .PMD and .PMR. It is always simplest to have the circular letter and your list on the same disc, and Appendix E explains how to achieve this. If however, the list files are on a different disc drive then you can specify that in the name of the list.

For example if the current disc is A: and you wish to use a list on drive A: called CUSTOMER.PMD (and CUSTOMER.PMR - both files must be present) you would simply type

CUSTOMER<RETURN>

If there is a list on the RAM disc drive M: called SUPPLIER.PMD (and SUPPLIER.PMR) then you can access it by typing

M:SUPPLIER<RETURN>

In each case the directory of the list is displayed.

Selecting records to be merge-printed

It may be that you only wish to produce circular letters for some of records in the list. When the directory is displayed you can use the arrow keys to move the Block Cursor to the required records and press RETURN to place an asterisk beside those records you want. To remove an asterisk replace the Block Cursor on the record and press RETURN again.

When you have selected those records you require press EXIT to get back to the PRINT MENU.

When you START PRINTING the merge-printing process begins. The records in the list are read in turn and their contents are inserted into the circular letter at the points denoted by the markers (&A, &B, etc.).

Printing POLYMAIL labels

If the circular letter is being despatched using non-window envelopes then labels for the envelopes can be produced using the POLYWORD program. You probably cannot do this on a daisywheel printer since the friction feed can be in error by about 1mm per label and after 10 labels they will be misalligned by 1cm. You must use a tractor feed for continuous stationery.

Creating the label required

The label is created in POLYWORD as a file, exactly as for the circular letter. The first character of the label should be typed in the top left hand corner of the first page of the file.

The information which can be printed on the label will depend on the size of the labels to be used. As a minimum, the name and address elements from the addressee records would be used. In that case you would type &A (full name) in the top left hand corner with &C to &G (the address elements) on successive lines at the left hand edge of the page.

By creating a label as a text file additional information can be included. For example below the name and address it is possible to include 'For the attn of: &A', in which case the name of the contact at the company can appear on the label.

Other non-changing information can be included such as 'From ARCOM SOFTWARE' or 'Return to sender if undelivered'. Whatever is included you must be sure not to exceed the size of the label.

An example label pro-forma

Below is an example of a label pro-forma document printed using POLYWORD. The layout of the label is determined by this pro-forma. Any text that is not markers will be reproduced unchanged on each of the labels.

```
&B
 &C
  &D
   &E
    &F
     &G

For Attn: &A
```

An example merge-printed label

This is a label merge-printed by POLYWORD using the above label pro-forma. Note that the text is reproduced unchanged.

```
Acme Services Ltd.
 Kingsland House
  275 - 279 Stavordale Road
   West Tiverton
    Surrey
     ENGLAND   SY12 6DF

For Attn: Mr Stephen J. Preston
```

Size of the label

The POLYWORD program is designed to print on single self-adhesive labels on continuous carrier stationery. The labels must also be pitched at a vertical spacing which is exactly divisible by 1/6th of an inch. If this is not the case sucessive labels will get progressively out of allignment.

FORM LENGTH for labels

The FORM LENGTH option in the Print Menu sets the distance between succeeding labels. Measure the distance in inches between the top of one label and the top of the next label. Multiply this distance by 6 and set the FORM length to this number. The usual setting of 9 lines is suitable for labels set at one and a half inches apart.

LEFT MARGIN on labels

The setting for the left margin will determine where on the label the name and address will appear. Obviously it will also depend on where on the carriage you position the labels. Once you have decided the correct margin for your labels and the correct position for the stationery you should write them down in this manual for future reference.

Recommended procedure

The labels will have printed out in the same sequence as the circular letter. It is vital to ensure that the correct letter is placed in the envelope having the correct label. To achieve this a standard routine should be adopted. One method is to stick each label on an envelope and insert the corresponding letter before proceeding with the next label.

POLYPLOT

CONTENTS

SECTION 1

INTRODUCTION

The POLY series

POLYPLOT is the graph plotting program of the POLY series of programs. The programs in the POLY system are as follows:-

POLYWORD	- The word processor
POLYPRINT	- The NLQ variable font printing program
POLYMAIL	- The mailing list program
POLYPLOT	- The dot matrix graph plotting program

All the programs in the system operate in a similar way. So once you have used one program you can at once use any of them.

POLYPLOT is designed for easy use by someone with no previous computer experience.

POLY Keyboard

When any of the POLY programs is run it configures the keyboard to the same pattern. By doing this POLYPLOT can use the arrow keys on the right hand side of the keyboard. In addition, you can operate POLYPLOT using the same keys as in WORDSTAR.

POLYPLOT leaves the keyboard configured. If you wish to change back to the original configuration you can reset the computer by pressing SHIFT + EXTRA + EXIT together.

Menus in POLYPLOT

As in all POLY programs, POLYPLOT options are offered to you in the form of menus. When a menu is first displayed the first option is highlighted - black text on green background. This is called the Block Cursor. It can be moved by the UP and DOWN arrow keys.

To make POLYPLOT operate in the same way as WORDSTAR the Block Cursor can also be moved up by pressing ALT + E (2 keys together) and moved down by pressing ALT + X.

When the Block Cursor is on the option you require you press the RETURN key to make that selection. The last option in each menu is to ESCAPE from that menu. The same effect can be achieved by simply pressing the EXIT key.

So when a menu is displayed only the following 6 keys can be used. Pressing any other key will display an error message.

[↑] or ALT + E	MOVE BLOCK CURSOR UP
[↓] or ALT + X	MOVE BLOCK CURSOR DOWN
RETURN	SELECT OPTION UNDER BLOCK CURSOR
EXIT	ESCAPE FROM THE MENU

ALT key

The ALT key at the bottom left of the keyboard is used to perform special functions especially during editing in POLYPLOT. It is used by depressing it and then - at the same time - pressing one other key (A - Z). In this manual when you see ALT + T it means press the ALT key and the T key at the same time.

Escape - EXIT key

The EXIT key is used to escape from various situations when in POLYPLOT. In general it will take you back to where you were last. It allows you to leave menus, data entry formats etc. It is not available when questions have been posed. In these places only Y or N are valid. (To cover foreign languages Y, J, O and S all mean YES)

Running POLY programs

To run a POLY program switch on the computer and insert a CP/M plus start of day disc (with J10CPM3.EMS FILE). When the CP/M symbol A> is showing insert the disc with the program required into the drive. The label on the disc side required must be pointing to the screen. Then type the name of the program and press the RETURN key.

e.g. A>POLYPLOT<RETURN>.

This may be in either upper or lower case.

If you fit additional drives to your Amstrad 8256 POLYPLOT can operate on them. However, Section 2 explains in detail that you must have POLYPLOT, the graphs you create and the typefaces on the same disc, but this disc can be any of the drives available.

If you are unfamiliar with the CP/M operating system then you should read Appendix B at the back of this manual. Also you should read Appendix E which tells you the simplest way arrange the files on your discs.

SECTION 2

MAIN MENU OPTIONS

General

POLYPLOT is a menu driven program which allows you to produce sophisticated graphs on your AMSTRAD PCW 8256 printer. It can produce pie charts, histograms and line graphs. The program allows you to set titles, label axes and input data in a very user-friendly way. The graphs can be stored on disc and later retrieved and edited.

Up to 4 sets of data can be shown on the same graph and each set can have up to 20 points. POLYPLOT uses double density graphics printing - the image is 960 pixels wide and up to 700 dots deep. This gives remarkable density but it does take some time to build up the image prior to printing.

In producing the graph, POLYPLOT uses the RAM disc drive M. It must have at least 58k free space on drive M before POLYPLOT can be used. If you run POLYPLOT with insufficient free space on drive M you will get the following error message.

```
32K FREE SPACE ON DRIVE M. ERASE FILES TO CREATE 58K FREE SPACE
```

POLYPLOT then returns to CP/M Plus for you to create more space on drive M by erasing unwanted files. Once you have more than 58K free space on drive M you can run POLYPLOT. When you do the Main Menu will be displayed.

POLYPLOT Main Menu

```
                          P O L Y P L O T
Copyright (c) ARCOM SOFTWARE 1985                          Version 1.01
Supplied by : ARCOM SOFTWARE -- POOLE -- DORSET -- ENGLAND.

        START PRINTING
        DESCRIBE GRAPH          BAR GRAPH
        INPUT DATA              1  Set(s)        10  Points
        FETCH GRAPH FILE        No graph file loaded
        STORE GRAPH FILE
        ESCAPE
```

MAIN MENU OPTIONS

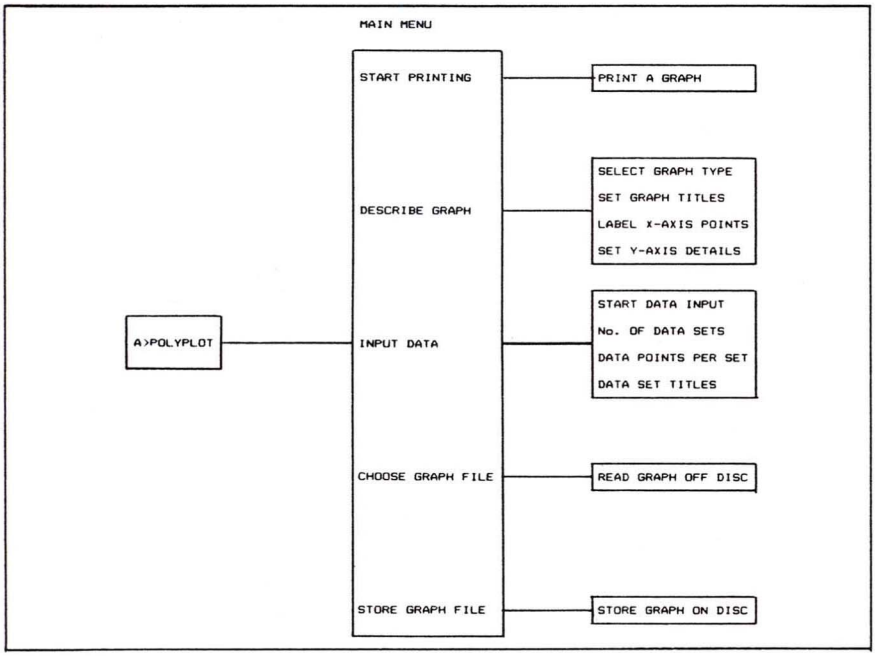
This menu operates in the usual way - you move the Block Cursor using the UP and DOWN arrow keys and press the RETURN key to select the required option. The EXIT key will return you to the CP/M Plus operating system.

Principle of operating POLYPLOT

The principle behind POLYPLOT is that you should describe the graph you require in a number of easy steps, you then input the data for the graph and finally you print the graph. The description of the graph can be stored in a CP/M file and previous graphs can be retrieved and printed. They can be edited and restored on disc; so for instance you could have a standard graph of monthly sales performance which each month could be updated, printed and then stored back on disc.

Structure of the POLYPLOT program

POLYPLOT, like all POLY programs, is a menu driven program. But it has more levels than the other POLY programs so it is more important to keep track of where you are in the program. To help you here is a diagram of the basic structure of the program.



The DESCRIBE GRAPH option is covered in Section 3 of this manual and the INPUT DATA option is covered in Section 4. This Section discusses the START PRINTING, CHOOSE GRAPH FILE and STORE GRAPH FILE options.

Use of discs in POLYPLOT

The original disc drive fitted to the AMSTRAD PCW8256 is called drive A. The RAM disc is called drive M. Additional disc drives can be added with names B to P.

Unlike the other POLY series programs POLYPLOT does not allow you to change from disc to disc while you are in the program. The reason for this is that in addition to graph files you must have typeface files on a disc to produce a graph sucessfully.

The recommended way to use POLYPLOT is to use DISCKIT to copy your POLYPLOT master disc complete with the 9 typefaces. Always use this copy disc in drive A. Operating in this way all the typefaces are always available. There should be enough room on the disc for about 12 graphs. If you run out of space you could erase any of the typeface files which you never use to make room for more graph files.

If you fill up the disc with graph files and you do not wish to sacrifice any of the typeface files then you can create a new POLYPLOT disc by making another DISCKIT copy of your master disc.

If you have an additional disc drive on your AMSTRAD PCW 8256 then you can run POLYPLOT on that drive. In this case you would have enough disc space for about 100 graph files.

START PRINTING

This option is selected when you have either described the graph fully or you have chosen an existing graph from the disc. When you START PRINTING the computer has to do a lot of processing to plot in memory over 500,000 dots. Nothing is printed until all the points have been plotted. So for about 5 minutes nothing will happen apart for the flashing on the screen of the message:-

PROCESSING GRAPH - PLEASE WAIT

If you change your mind about printing the graph whilst the processing is being carried out you can abort the process by pressing the EXIT key.

Once printing has begun the EXIT key can still be used to abort printing but due to the 2k print buffer the action of the EXIT key is not instantaneous.

If in printing the graph the program comes across a request for a typeface such as

*T9 (see Section 3)

it will search the current disc for typeface number 9 - American Typewriter - in a file called 009.FNT. If it cannot find that typeface then the printing process is aborted with the message:-

```
PRINTING ABORTED - CANNOT FIND TYPEFACE FILE 009.FNT
```

In this case you must either choose a different typeface and START PRINTING again or leave the program and PIP the required typeface onto your working POLYPLOT disc.

If you have not specified any typefaces in your description of the graph then POLYPLOT will try to use the default typeface number 1 - Bodoni. If this is not available printing will be aborted with the above message.

CHOOSE GRAPH FILE

On selecting this option a directory of graphs on the current disc is displayed. All POLYPLOT graph files have the same extention of .PPL. The graph directory looks like this:-

```
GRAPH DIRECTORY FOR DRIVE A

ACCOUNTS.PPL    EXPENSES.PPL    PRF-LOSS.PPL    SALES83 .PPL
SALES84 .PPL    SALES85 .PPL    SHARES  .PPL    TAX84-85.PPL
WORKIP  .PPL

FREE SPACE  32K
```

The POLYPLOT graph files are displayed horizontally in alphabetical order and any other files on the disc are not shown. At the bottom of the directory is the free space left on your POLYPLOT working disc. You should take care that the free space does not get too low. A POLYPLOT graph file takes 2K of disc space.

To choose the graph file you want, use the UP, DOWN, LEFT and RIGHT arrow keys to move the Block Cursor to the required file and then press the RETURN key. If you do not want to choose any of the graphs press the EXIT key.

Once you select the required graph file it is read and the Main Menu is redisplayed with that file name beside the CHOOSE GRAPH FILE option.

The DESCRIBE GRAPH option is covered in Section 3 of this manual and the INPUT DATA option is covered in Section 4. This Section discusses the START PRINTING, CHOOSE GRAPH FILE and STORE GRAPH FILE options.

Use of discs in POLYPLOT

The original disc drive fitted to the AMSTRAD PCW8256 is called drive A. The RAM disc is called drive M. Additional disc drives can be added with names B to P.

Unlike the other POLY series programs POLYPLOT does not allow you to change from disc to disc while you are in the program. The reason for this is that in addition to graph files you must have typeface files on a disc to produce a graph sucessfully.

The recommended way to use POLYPLOT is to use DISCKIT to copy your POLYPLOT master disc complete with the 9 typefaces. Always use this copy disc in drive A. Operating in this way all the typefaces are always available. There should be enough room on the disc for about 12 graphs. If you run out of space you could erase any of the typeface files which you never use to make room for more graph files.

If you fill up the disc with graph files and you do not wish to sacrifice any of the typeface files then you can create a new POLYPLOT disc by making another DISCKIT copy of your master disc.

If you have an additional disc drive on your AMSTRAD PCW 8256 then you can run POLYPLOT on that drive. In this case you would have enough disc space for about 100 graph files.

START PRINTING

This option is selected when you have either described the graph fully or you have chosen an existing graph from the disc. When you START PRINTING the computer has to do a lot of processing to plot in memory over 500,000 dots. Nothing is printed until all the points have been plotted. So for about 5 minutes nothing will happen apart for the flashing on the screen of the message:-

PROCESSING GRAPH - PLEASE WAIT

If you change your mind about printing the graph whilst the processing is being carried out you can abort the process by pressing the EXIT key.

Once printing has begun the EXIT key can still be used to abort printing but due to the 2k print buffer the action of the EXIT key is not instantaneous.

If in printing the graph the program comes across a request for a typeface such as

*T9 (see Section 3)

it will search the current disc for typeface number 9 - American Typewriter - in a file called 009.FNT. If it cannot find that typeface then the printing process is aborted with the message:-

```
PRINTING ABORTED - CANNOT FIND TYPEFACE FILE 009.FNT
```

In this case you must either choose a different typeface and START PRINTING again or leave the program and PIP the required typeface onto your working POLYPLOT disc.

If you have not specified any typefaces in your description of the graph then POLYPLOT will try to use the default typeface number 1 - Bodoni. If this is not available printing will be aborted with the above message.

CHOOSE GRAPH FILE

On selecting this option a directory of graphs on the current disc is displayed. All POLYPLOT graph files have the same extention of .PPL. The graph directory looks like this:-

```
GRAPH DIRECTORY FOR DRIVE A

ACCOUNTS.PPL    EXPENSES.PPL    PRF-LOSS.PPL    SALES83 .PPL
SALES84 .PPL    SALES85 .PPL    SHARES  .PPL    TAX84-85.PPL
WORKIP  .PPL

FREE SPACE  32K
```

The POLYPLOT graph files are displayed horizontally in alphabetical order and any other files on the disc are not shown. At the bottom of the directory is the free space left on your POLYPLOT working disc. You should take care that the free space does not get too low. A POLYPLOT graph file takes 2K of disc space.

To choose the graph file you want, use the UP, DOWN, LEFT and RIGHT arrow keys to move the Block Cursor to the required file and then press the RETURN key. If you do not want to choose any of the graphs press the EXIT key.

Once you select the required graph file it is read and the Main Menu is redisplayed with that file name beside the CHOOSE GRAPH FILE option.

STORE GRAPH

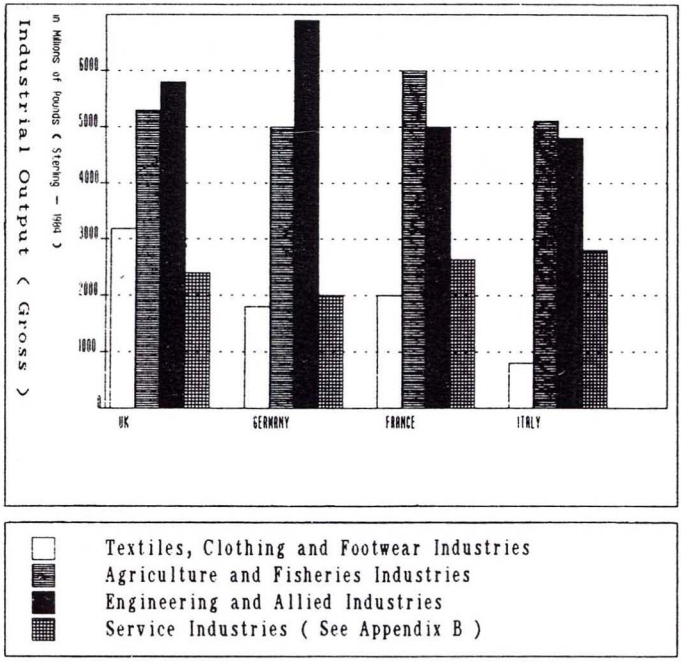
This option can be used to store the current graph in a CP/M file. When selected the following message is displayed:-

```
ENTER NAME FOR GRAPH FILE (Max. 8 Letters)  ________.PPL
```

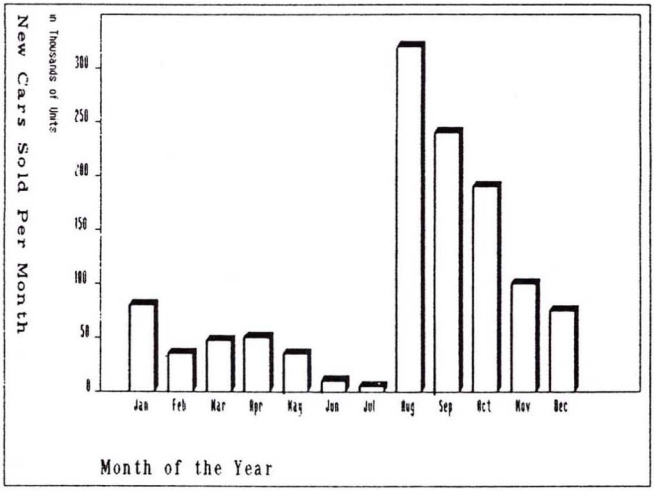
Pressing EXIT or RETURN immediately will get you back to the Main Menu. If you do wish to store the new graph, type its name and press RETURN. The current graph will then be stored under the given file name and you are returned to the Main Menu. If you have edited an existing graph file and you give the same name the old version will be overwritten. If you give a new name the original graph file will be retained and the graph will be stored in a newly created file.

Types of Polyplot graphs

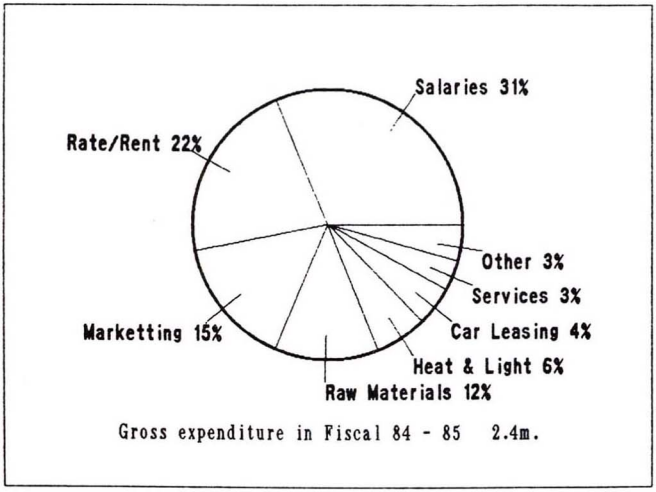
There are three basic types of Polyplot Graphs: bar graphs (also called histograms), line graphs and Pie graphs. This is an example of a comparative bar graph - comparing 4 sets of data.



Bar graphs can also be plotted for a single set of data, in which case they will look like this:-



An example of a line graph can be seen on page 11 of this manual. The last type of graph is a pie graph. In this case you input the absolute data values and Polyplot works out the correct percentages. The result is a pie like this:-

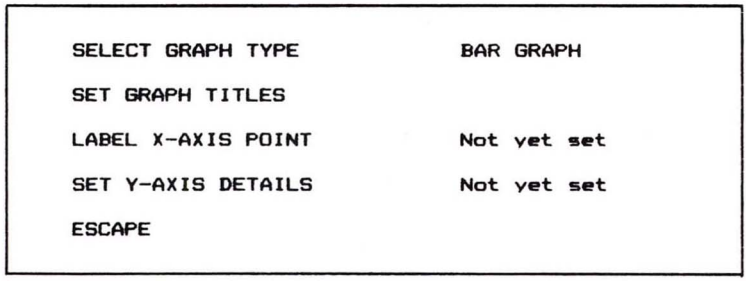


SECTION 3

DESCRIBE GRAPH

DESCRIBE GRAPH

This option in the Main Menu is used to describe the details of the graph you wish to draw. When it is selected the following sub-menu is displayed.



As usual you use the arrow keys to move the Block Cursor and press the Return key to select the option.

Text editing

Many of the options in describing a graph involve editing the text to be used for headings, axis titles and labels. In all these cases the usual POLY editing keys can be used.

EXIT

The EXIT key can be used to leave any of the text editing formats to get back to the previous menu. It is also used in the INPUT DATA format to finish data entry.

Moving the cursor over text

To move the cursor you can either use the LOCOSCRIPT arrow keys on the right of the keyboard or you can use the WORDSTAR commands. The following key combinations are equivalent:-

UP ARROW	ALT + E	Move cursor up 1 line
DOWN ARROW	ALT + X	Move cursor down 1 line
LEFT ARROW	ALT + S	Move cursor left 1 character
RIGHT ARROW	ALT + D	Move cursor right 1 character

INSERT Mode

POLYPLOT is normally in INSERT Mode. In this mode any text that is typed is inserted into a line moving the following text to the right. (The word INSERT appears at the top right of the screen)

OVERWRITE Mode - ALT + V

To change from the INSERT Mode to the OVERWRITE Mode or vice versa you use the command ALT + V. In Overwrite Mode any text typed will replace existing text to the right. (The word OVERWRITE appears at the top right corner of the screen)

Deleting text

The following keys can be used to delete existing text.

DEL->	ALT + G	Deletes the character under the cursor
<-DEL or CAN	ALT + H	Deletes the character left of cursor
SHIFT + CUT	ALT + Y	Deletes whole line the cursor sits on

SELECT GRAPH TYPE

This option allows you to choose from one of the following three types of graph:-

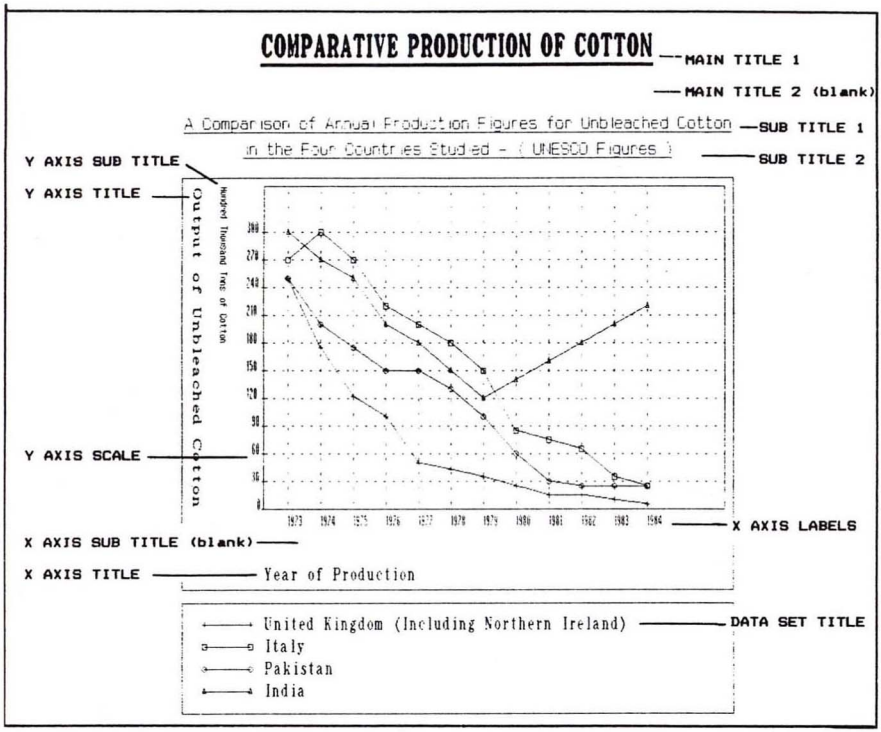
BAR GRAPH
LINE GRAPH
PIE GRAPH

A bar graph or histogram can be drawn for one set of data at a time or, if the number of data sets is greater than one, a bar graph can show comparative data. A maximum of four sets of data can be plotted on the same graph and a maximum of 20 points can be plotted for each set.

Likewise, a line graph can be for 1 set of data or for up to 4 sets of data. A pie graph can only be drawn for data set 1. The labels in a pie graph are input as the X-AXIS LABELS. It is not necessary to input the percentages, these are automatically calculated.

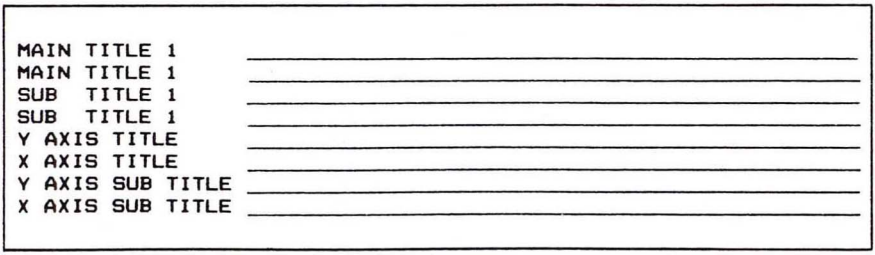
Position of graph titles

The following example of a line graph shows you where each of the legends will appear on the printed graph. The positions for bar graphs are the same. For Pie Graphs the Y Axis title and sub title are not used and if the X Axis title and subtitle are used they will appear centred at the foot of the pie graph.



SET GRAPH TITLES

This option is used to edit the text to be used at the top of the graph and to edit the titles and sub-titles of the Y-AXIS and the X-AXIS. (See later for X AXIS LABELS and Y AXIS Scale) On selecting this option the following screen is displayed:-



You are free to edit any of these legends in any order, moving between them using the UP and DOWN arrow keys. All the editing keys listed above are available.

Two lines of main title and two lines of sub title are available to describe the graph. Each line can have up to 60 characters. Any of the lines may be left blank. If all the lines are left blank then the graph will be untitled.

The X AXIS is horizontal, the Y AXIS is vertical. Each may have a title and a subtitle. These legends are in addition to the X AXIS labelling and the Y AXIS scale.

Changing typeface

POLYPLOT uses the same typefaces as POLYPRINT. It comes complete with the 9 typefaces of Set No. 1. The typeface for any given legend can be selected by starting that legend with a typeface switch *Tn - where n is the typeface number.

So if you wished to entitle a graph "AVERAGE SALES" in the COOPER BLACK typeface you would type in the first line of the format:-

```
*T101 AVERAGE SALES
```

Note that the *T101 must be at the start of the line and must not include any spaces. Also Note that a space MUST separate the *T101 switch from the text of the title.

The typeface remains switched until the next *T is encountered. The titles are printed in the same order as they appear in the SET GRAPH TITLES format. Once those titles have been printed the X AXIS LABELS and the Y AXIS SCALE are printed. Finally the DATA SET TITLES are printed if No. OF DATA SETS is more than one.

A large typeface should only be used for the main titles otherwise you may cause overprinting. No checks are made in this regard and it is up to you to choose appropriate typefaces.

LABEL X AXIS POINTS

This option is used to label each data point on the X AXIS. In the case of a pie graph these labels are used to describe each sector of the pie. When you select this option a format is displayed with 20 lines. Each labels can have up to 15 characters so abbreviations may be necessary.

The number of labels you insert must equal the number of data points you will later set in the INPUT DATA option (See Section 4), otherwise you will finish up with data which has no relevance. The program sub-divides the X AXIS in equal amounts by the DATA POINTS PER SET and not by the number of labels.

The labels are text, but you can use them as scales by typing in the figures. Some typical labels on the X AXIS might be.

JAN FEB MAR JUN JUL AUG SEP OCT NOV DEC

1981 1982 1983 1984 1985 1986

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Although there is room in the format for the full names of the months, in practice if there are 12 months there is no room on the graph for JANUARY FEBRUARY MARCH etc. Again no checks are made for conflicts like this so it is up to you to experiment with abbreviations and typefaces to avoid overprinting.

To set the typeface for all the X AXIS labels you need only put a *T command in the first label. Small typefaces are recommended for these labels. The typeface chosen for the X AXIS labels is also automatically used to print the Y AXIS SCALE.

SET Y AXIS DETAILS

These details control the values printed on the Y AXIS SCALE of the graph. The menu is used to set four parameters.

1 The highest value on the Y AXIS
2 The lowest value on the Y AXIS
3 The size of the interval on the Y AXIS
4 The grid lines from the Y AXIS

This menu has no meaning if you are producing a PIE GRAPH.

In allowing these numbers to be set rather than automatic you are allowed maximum flexibility, however there is wide scope for error in these options. Say you are graphing sales of widgets of 10, 20 and 30 a month. If you set the high value for the Y AXIS to 1000 then you will effectively squash your graph flat as the data will appear as tiny blips on a scale of 0 to 1000.

There are interlocks between this menu and the START DATA INPUT format. (See Section 4) You must set the high and low limits on the Y AXIS before you enter the data since you are prevented from entering data which is greater than the high limit or less than the low limit on the Y AXIS.

The interlocks also work the other way so if you have input data of say 1000 units you will be prevented from subsequently resetting the high limit on the Y AXIS to 500.

The Y-AXIS scale is marked at fixed intervals at the number of units you set. If your range for the Y AXIS is 0 to 1000 then setting an interval of 10 units would give you 100 grid lines which is too crowded. The maximum number of grid lines allowed in 20. If the Y AXIS INTERVAL is left as zero then only the high and low values will be marked on the axis.

Various checks are made to prevent such things as setting the high value less than the low value on the Y AXIS, or setting the interval to give more than 20 values.

The fourth option in this menu allows you to select or supress grid lines running from the Y AXIS across the width of the graph. Grid lines from the X AXIS to the top of the graph are compulsory for line graphs and are supressed on Bar Graphs.

Special Characters

Normally you can only edit characters with ASCII codes in the range 32 - 126. Your version of POLYPLOT will produce the UK character set.

If you want to include any of the special foreign characters in a graph legend press the ▦ key (in the middle of the arrow keys). This displays the following message:-

> ENTER CODE FOR SPECIAL CHARACTER YOU WANT (127-186)

Enter the code for the character you require and then press Return. For example if you want to type "München" you would type

M ▦ 129 <RETURN> n c h e n

The POLYPLOT Character Set

The POLYPLOT character set is based on the IBM character set and so it differs from the CP/M PLUS character set. The codes and character in the POLYWORD character set are:-

127 = Ä	139 = ï	151 = ù	163 = ú	175 = ⌀
128 = Ç	140 = î	152 = ÿ	164 = ñ	176 = #
129 = ü	141 = ì	153 = Ö	165 = Ñ	177 = $
130 = é	142 = Ä	154 = Ü	166 = a̲	178 = @
131 = â	143 = Å	155 = ¢	167 = o̲	179 = [
132 = ä	144 = É	156 = £	168 = ¿	180 = \
133 = à	145 = æ	157 = ¥	169 = §	181 =]
134 = á	146 = Æ	158 = Pt	170 = ß	182 = ^
135 = ç	147 = ô	159 = ƒ	171 = α	183 = {
136 = ê	148 = ö	160 = á	172 = °	184 = ¦
137 = ë	149 = ò	161 = í	173 = Ø	185 = }
138 = è	150 = û	162 = ó	174 = ¨	186 = ~

SECTION 4

INPUT DATA

INPUT DATA

This option in the Main Menu is used to input the data to be plotted on the graph. The values input here must fall between the high and the low limits on the Y AXIS. So these limits MUST be set in the DESCRIBE GRAPH menu before inputting the data. When INPUT DATA is selected the following sub-menu is displayed:-

START DATA INPUT
No. OF DATA SETS 1
DATA POINTS PER SET 10
DATA SET TITLES
ESCAPE

As usual use the arrow keys to move the Block Cursor and press the Return key to select the required option. You must set the No. OF DATA SETS and the DATA POINTS PER SET before selecting the START DATA INPUT option.

No. OF DATA SETS

This option allows you to choose to have 1, 2, 3 or 4 sets of data plotted on the same graph. On a line graph a separate line is plotted for each set you specify. On a bar graph, having more than one set produces a comparative histogram; that is for each data point a group of bars is plotted - 1 for each set.

If you are producing a pie graph then only set 1 is used.

DATA POINTS PER SET

This option determines the number of data points you wish to plot for each data set. So for instance if you were plotting monthly sales for a complete year you would set this value to 12. This should be the same as the number of X AXIS labels you have input.

On a line graph this number determines the horizontal spacing on the X AXIS. On a bar graph it determines the number, the width and the pitch of the bars. The maximum number of data points per set is 20. Note that if you ask for a comparative histogram of 4 sets of data with 20 points in each set then the bars are necessarily very narrow to fit them on the page.

INPUT DATA

Once you have set the number of data sets and the number of points per set you can input the data for the graph. Selecting this option displays the following format:-

	DATA SET 1	DATA SET 2	DATA SET 3
Jan	0.00	0.00	0.00
Feb	0.00	0.00	0.00
Mar	0.00	0.00	0.00
Apr	0.00	0.00	0.00
May	0.00	0.00	0.00
Jun	0.00	0.00	0.00
Jul	0.00	0.00	0.00
Aug	0.00	0.00	0.00
Sep	0.00	0.00	0.00
Oct	0.00	0.00	0.00
Nov	0.00	0.00	0.00
Dec	0.00	0.00	0.00

The number of columns displayed is set by No. OF DATA SETS. The number of rows displayed is set by DATA POINTS PER SET. The column at the left hand side of the screen displays the X AXIS LABELS you have previously set in the DESCRIBE GRAPH menu (See Section 3).

In the INPUT DATA format you can use the UP, DOWN, LEFT and RIGHT arrows to move the Block Cursor to the data point you wish to input, then simply enter the number followed by the RETURN key. Once you have started entering a number the arrow keys will not work again until you complete the data entry by pressing Return. A maximum of 2 places of decimals are allowed. The number input must be within the range set for the Y AXIS. (see Page 13)

If you make an error entering any number then you can press the CAN or DEL keys to erase the error. If you have pressed the Return key before discovering your error then you can simply put the Block Cursor back on the point and re-enter that number.

When you have entered all the data points in the format press the EXIT key to get back to the INPUT DATA menu.

DATA SET TITLES

If there is more than one data set to be plotted on a line graph or bar graph then a key will be needed to describe each data set. These DATA SET TITLES are edited using this option. The usual editing facilities and typeface switching are available and each title can be a maximum of 60 characters long. The titles appear in a box at the foot of the graph as shown on the example on page 11. If you are only plotting 1 data set this key is supressed as you can describe the graph more fully using the other legends.

APPENDICES

LIST OF APPENDICES

APPENDIX A

TYPEFACE NUMBERS AND EXAMPLES

The Poly typefaces are supplied in 3 sets. The original Polyprint program is always supplied with Set Number 1 which has 9 typefaces. Typeface Set 2 and Typeface Set 3 have 8 typefaces per set and they are available from ARCOM SOFTWARE.

On this page the typefaces are listed in numerical order regardless of set number. On the following pages there are example of each of the typefaces from sets 1, 2 and 3 in turn.

Typeface No.	Typeface Name	Set
1	Bodoni	1
2	Old English	2
3	Flash Bold	1
4	Commercial Script	1
5	Helvetica Light	1
6	Helvetica Italic	2
7	Helvetica Medium Italic	3
8	Broadway	1
9	American Typewriter	2
10	Light Italic	3
11	Helvetica Medium	1
12	Bodoni Italic	1
13	Sans Serif Shaded	3
14	Microgramma Extended	3
15	Tiny Print	2
101	Cooper Black (large)	1
102	Broadway (large)	2
103	Compacta	2
105	Helvetica Light (large)	3
109	Typewriter (large)	3
110	Bodoni (large)	3
113	Sans Serif (large)	3
114	Microgramma (large)	2
121	Cooper Hollow (large)	2
315	Miniscule Print	1

If you have more than one set of typefaces you are free to use them in any combination. However since each typeface occupies 12K on disc then 25 typefaces will occupy 300K on disc. Clearly this cannot be contained on drive A: but it could be held on drive B: of the PCW8512 or on drive M: if it has been expanded to 368K. If you only have disc drive A: then you can use the PIP command to copy any 8 typefaces from the 25 available on to your Polyprint working disc.

POLY TYPEFACE SET 1

No. 1 BODONI
ABCDEFGHIJKL abcdefghijkl

No. 3 FLASH BOLD
ABCDEFGHIJKL abcdefghijkl

No. 4 COMMERCIAL SCRIPT
ABCDEFGHIJKL abcdefghijkl

No. 5 HELVETICA LIGHT
ABCDEFGHIJKL abcdefghijkl

No. 8 BROADWAY
ABCDEFGHIJKL abcdefghijkl

No. 11 HELVETICA MEDIUM
ABCDEFGHIJKL abcdefghijkl

No. 12 BODONI ITALIC
ABCDEFGHIJKL abcdefghijkl

No. 315 MINISCULE PRINT
ABCDEFGHIJKL abcdefghijkl

No.101 COOPER BLACK (large)
ABCDEFGHIJKL abcdefghijkl

POLY TYPEFACE SET 2

No. 2 OLD ENGLISH
ABCDEFGHIJKL abcdefghijkl

No. 6 HELVETICA LIGHT
ABCDEFGHIJKL abcdefghijkl

No. 9 AMERICAN TYPEWRITER
ABCDEFGHIJKL abcdefghijkl

No. 15 TINY PRINT
ABCDEFGHIJKL abcdefghijkl

No. 102 BROADWAY (large)
ABCDEFGHIJKL abcdefghijkl

No. 103 COMPACTA (large)
ABCDEFGHIJKL abcdefghijkl

No. 114 MICROGRAMMA (large)
ABCDEFGHIJKL abcdefghijkl

No.121 COOPER HOLLOW (large)
ABCDEFGHIJKL abcdefghijkl

POLY TYPEFACE SET 3

No. 7 HELVETICA MEDIUM ITALIC
ABCDEFGHIJKL abcdefghijkl

No. 10 LIGHT ITALIC
ABCDEFGHIJKL abcdefghijkl

No. 13 SANS SERIF SHADED
ABCDEFGHIJKL abcdefghijkl

No. 14 MICROGRAMMA EXTENDED
ABCDEFGHIJKL abcdefghijkl

No. 105 HELVETICA LIGHT (LARGE)
ABCDEFGHIJKL abcdefghijkl

No. 109 TYPEWRITER (LARGE)
ABCDEFGHIJKL abcdefghijkl

No. 110 BODONI (LARGE)
ABCDEFGHIJKL abcdefghijkl

No.113 SANS SERIF (large)
ABCDEFGHIJKL abcdefghijkl

APPENDIX B

SIMPLE CP/M

Absolute Beginners

If the Amstrad PCW 8256 is your very first computer then there will be many concepts and procedures which will not be familiar to you. Much of this computer jargon concerns the Operating system CP/M Plus.

The second half of Book 1 of the Amstrad PCW8256 manual is a description of all the nuts and bolts of CP/M. It is important for you to know some of the information contained in those 180 pages but much of it is probably of no use to you whatsoever.

Our intention in this appendix is not to repeat all the details of the Amstrad manual, but to give you a quick birds-eye view of the important bits of CP/M. This should give you enough knowledge to manage your discs and get the most out of the Poly series of programs which necessarily run under CP/M.

This appendix is only 4 pages long. If you are a novice we strongly recommend that you read it all. If after a few weeks you want a fuller explanation of these topics then you should read the first forty nine pages of the Amstrad CP/M manual.

What is CP/M?

CP/M stands for Control Program for Microcomputers. It is one of the two major operating systems for microcomputers. The other one is MSDOS (also known as PCDOS.) An operating system is a special computer program which manages all activity in a microcomputer. It controls data traffic to the memory, the screen, disc drives, printers, serial ports, parallel ports etc. All other programs run under the supervision of CP/M. The only exception to this is Locoscript which has its own operating system.

Booting CP/M

Loading CP/M into memory is called 'Booting' or 'Boot strapping'. This is an analogy to someone pulling themselves up by their own bootstraps. The CP/M system can be found in a file called J10CPM3.EMS on side 2 of your Amstrad master disc. To load CP/M switch on your computer and insert side 2 of your master disc. After the usual stripes your screen should look like this:-

```
CP/M Plus  Amstrad Consumer Electronics plc
v 1.4, 61K TPA, 1 disc drive, SIO/Centronics add-on, 368K drive M:
A)
```


If you get the Locoscript menu then you have put the wrong side of the disc in. Turn the disc over and press SHIFT + EXTRA + EXIT all at the same time.

The 'A>' is the CP/M symbol which tells you it is ready to receive a command from you on the keyboard. The 'A' in 'A>' indicates that the current 'logged on' disc drive is the A: drive - the one at the top. If your computer has a second disc drive it will be the lower disc drive and it will be called B:. There is also a Memory Drive called M:.

To change from one drive to the next type the drive letter followed by a colon and then press the RETURN key.

e.g. A>M: <RETURN> (this logs on to the memory drive M:)
M>b: <RETURN> (this logs on to drive B: if poss.)
B>A: <RETURN> (this gets you back onto drive A:)

Files and Filenames

Data on a disc is organised by CP/M into files. The data might be text, numbers or computer programs. Each file has a name. CP/M file names consist of up to 8 characters a full stop and up to a three character extention. (e.g. FILENAME.EXT) Not all the characters need be used and the extention is not compulsory. The following are therefore valid file names:-

SALES.LTR FILE.EXT F.DOC FILE F17 CUSTOMRS.JAN

The following characters CANNOT be used in CP/M filenames.

< > . , ; : = ? * [ ] _ % ¦ ( ) / \

Also no imbedded spaces are allowed in the filename or extention. Files ending in the extention .COM are program files.

Disc Directories

To find out what is on a disc you can display the directory of that disc on the screen. Insert the disc into the logged on drive, type 'DIR' and press the RETURN key.

```
A>DIR <RETURN>
A: J10CPM3  EMS : BASIC    COM : DISCKIT  COM : DIR      COM
A: PAPER    COM : SET24X80 COM : SETKEYS  COM : SETLST   COM
```

If you want to see the directory for the disc in another disc drive you can either log on to that drive and use the DIR command or you can type:-

A>DIR B: <RETURN>

This will show you what files are on the disc in drive B: but leave you logged on to drive A:.

Write Protect Tabs

Amstrad CF2 discs have sliding tabs which can be used to protect a disc against writing or erasure. On each disc there is a tab for each side. If the tab is retracted then any attempt to write to that side of the disc will fail - The disc can only be read.

Erasing Files

Discs have limited capacities. For example a disc in drive A: can only store 173 Kilobytes per side. (approx 173000 characters) With this limit it is often necessary to erase files which you no longer require. You can do this from within the Polyword or Polymail programs, but you can also do it in CP/M.

If you have an old text file called, say, APRIL.TXT you can erase it by typing the following.

A>ERA APRIL.TXT <RETURN>

Where <RETURN> means press the RETURN key. This will erase the file and the space on the disc which it occupied is then free to be used for new files. Once a file is erased it cannot be recovered so be sure you have finished with a particular file before using the ERA command.

If you get the message NO FILE then you have probably made a typing error. If you get the message 'ERASE.COM required' then you may have the write protect tab open.

Renaming files

The CP/M filenames should reflect, where possible, what is contained in the file. As you use the files it may become necessary to rename a file so as to better describe its contents which may be changing from time to time. For example say you have a text file called SALES.MAY, with a report on the sales results up to MAY. You may re-edit this file to bring it up to date with results to June. In this case it would be better to rename the file as SALES.JUN. To do this, place the disc in the logged on drive and type:-

A>REN SALES.JUN=SALES.MAY <RETURN>

If you examine the directory you will find that SALES.MAY has been replaced by SALES.JUN. The general REN command format is:-

A>REN NEWNAME.EXT=OLDNAME.EXT

If you get the message NO FILE then you have probably made a typing error or you have mixed up the old name and the new name. If you get the message RENAME.COM required then you may have the write protect tab open.

Copying files

If you wish to copy individual files from disc to disc you should use the PIP.COM program. PIP stands for Peripheral Interchange Program.

The PIP.COM program is on SIDE 2 of your Amstrad master disc. To use it place that disc in drive A:, type PIP and press RETURN.

```
A>PIP <RETURN>
*
```

The asterisk is the PIP symbol which appears whenever PIP is ready to receive a command from the keyboard.

The basic format for a PIP command is *destination=source

The simplest form of this command is *M:=A:FILENAME.EXT

In this case the destination is the disc M:
....and the source is the file A:FILENAME.EXT

the file called FILENAME.EXT which is on drive A: will be copied to drive M: with the same name M:FILENAME.EXT.

If you have a single disc machine then to copy a file from one disc to another it is necessary to copy the file from the source disc on to the Memory Drive M:, insert the destination disc and finally copy the file from the Memory Drive M: back to the new disc in Drive A:.

For example if you wish to copy the POLYWORD.COM file from your master disc on to a working disc you perform the following tasks:

```
Insert Amstrad CP/M disc Side 2
A>PIP <RETURN>
*
Remove CP/M disc     -     Insert POLYWORD master disc
*M:=A:POLYWORD.COM <RETURN>
*
Remove POLYWORD master disc    -   Insert working disc
*A:=M:POLYWORD.COM <RETURN>
* <STOP>            Press STOP key (top left of keyboard)
A>                               (the copy is now complete)
```

If you have 2 discs you can put the POLYWORD master in A: and the working disc in B: and simply copy by typing:-

```
*B:=A:POLYWORD.COM
```

Note that PIP is very sensitive to typing errors so make sure all the := and full stops are present and correct and that there are no spaces in the command lines.

For more details on PIP see pages 24 and 25 of the CP/M manual.

APPENDIX C

EDITING KEYS IN POLYWORD

F1	F3	F5	F7	F8
PRINT CURRENT FILE	SHOW DISC DIRECTORY	CHANGE DISC DRIVE	RENAME CURRENT FILE	DELETE FILE

CURSOR MOVEMENTS

CURSOR UP 1 line	UP ARROW	or ALT + E
CURSOR DOWN 1 line	DOWN ARROW	or ALT + X
CURSOR LEFT 1 Char	LEFT ARROW	or ALT + S
CURSOR RIGHT 1 Char	RIGHT ARROW	or ALT + D
FORWARD WORD	SHIFT + WORD	or ALT + F
BACK WORD	SHIFT + ALT + WORD	or ALT + A
MOVE TO TOP OF PREVIOUS PAGE	ALT + PAGE	
MOVE TO TOP OF NEXT PAGE	PAGE	
MOVE TO TOP OF FILE	SHIFT + ALT + DOC	
MOVE TO END OF FILE	SHIFT + DOC	

SCREEN MOVEMENTS

MOVE SCREEN UP TEXT 1 LINE		ALT + W
MOVE SCREEN DOWN TEXT 1 LINE		ALT + Z
MOVE SCREEN UP 30 LINES	ALT + PARA	or ALT + R
MOVE SCREEN DOWN 30 LINES	PARA	or ALT + C

DELETIONS

DELETE BACK	DEL <-- or CAN	or ALT + H
DELETE FORWARD	DEL -->	or ALT + G
DELETE WORD	CUT	or ALT + T
DELETE LINE	SHIFT + CUT	or ALT + Y

OTHERS KEYS

TABULATE	TAB	or ALT + I
PARAGRAPH REFORM	RELAY	or ALT + B
FIND	FIND	or ALT + Q
FIND NEXT		ALT + L
INSERT / OVERWRITE		ALT + V
INSERT HARD RETURN		ALT + N
TOGGLE HARD RETURN		ALT + U
SET PAGE FORMAT		ALT + O
HELP		ALT + J
FINISH EDITING	EXIT	

APPENDIX D

THE POLY CHARACTER SET

The POLY character set is based on the IBM character set. Most of the characters from ASCII 32 to ASCII 126 are the same but for characters above 126 it does differ from the CP/M PLUS character set. It does not have any of the line drawing characters, fractions or Greek.

The codes and character above ASCII code 126 used in all the POLY programs are as follows:-

127 = Ä	139 = ï	151 = ù	163 = ú	175 = ø
128 = Ç	140 = î	152 = ÿ	164 = ñ	176 = #
129 = ü	141 = ì	153 = Ö	165 = Ñ	177 = $
130 = é	142 = Ä	154 = Ü	166 = ª	178 = @
131 = â	143 = Å	155 = ¢	167 = º	179 = [
132 = ä	144 = É	156 = £	168 = ¿	180 = \
133 = à	145 = æ	157 = ¥	169 = §	181 =]
134 = á	146 = Æ	158 = Pt	170 = ß	182 = ^
135 = ç	147 = ô	159 = ƒ	171 = Ø	183 = {
136 = ê	148 = ö	160 = á	172 = °	184 = ¦
137 = ë	149 = ò	161 = í	173 = Ø	185 = }
138 = è	150 = û	162 = ó	174 = ¨	186 = ~

APPENDIX E

RECOMMENDED USE OF DISCS

If you are a seasoned computer user then you will have no trouble using the Poly programs on two or three disc drives jumping from one to the other with ease.

If you are less experienced you may find it slightly confusing to have to keep changing discs for typefaces, text files, programs or whatever. In this appendix we explain the simplest way to organise your discs to use the Poly programs efficiently.

One Disc Operation

By far the simplest way to use any system is to put all the files you need on to one disc. For a basic PCW8256 you have no choice but to use drive A:, this allows you 173K of usable space. On the PCW8512 you can use drive B: which offers you 720K usable space. If you have a second disc drive always use drive B: for Poly programs since it gives you more working space.

It is possible to use the Poly programs on the Memory Drive M: but you should always bear in mind that a file is not safely stored until it is stored on drive A: or drive B: Files on drive M: will be destroyed as soon as you switch your computer off.

POLY PROGRAMS FULL SYSTEM MASTER DISC

Your master disc should never be used for working. You must always make working copies. The master disc for a full POLY PROGRAMS system has the following files:-

SIDE 1	Description	Size
PP.COM	The Polyprint Program	34K
READ.ME	Information	8K
001.FNT	Typeface 1 - Bodoni	12K
....FNT	8 more typefaces	96K
	Total space used	150K
	Free space on disc	23K
SIDE 2		
POLYWORD.COM	Polyword program	36K
POLYMAIL.COM	Polymail program	29K
POLYPLOT.COM	Polyplot program	41K
	Total space used	106K
	Free space on disc	67K

POLYPRINT - Simplest Disc Use

It is unlikely that you would need to use all 9 typefaces in one document. It is far more convenient to have Polyword and Polyprint together on one side of the disc. If you only have a single 173K disc drive, you must decide which three typefaces you are least likely to use. Say you can do without typefaces 315, 12 and 4, use DISCKIT to make a copy of side one of your master disc. Then erase the files 315.FNT, 012.FNT and 004.FNT from your working copy. Finally use the PIP program to transfer POLYWORD.COM on to your working disc. (If you are unfamiliar with the PIP program or CP/M please read the whole of Appendix B.)

With Polyword and Polyprint on the same disc you can quickly switch from one to the other. You would edit a file called say, NOTICE.TXT in Polyword, save it on the same disc in drive A:, leave Polyword and then type "PP NOTICE.TXT" and press RETURN. This will load Polyprint with the file NOTICE.TXT pre-selected and ready to be printed by Polyprint.

If you run out of space then either erase some of the files you no longer require or copy the disc and erase all the old files.

POLYMAIL - Simplest Disc Use

Again, with Polymail it is simplest to work entirely on one disc. To do this make a DISCKIT copy of side 2 of your master disc. Erase the POLYPLOT.COM file. This will leave you a disc with POLYWORD.COM and POLYMAIL.COM and 108K free space. This is enough to create 2 lists of 100 names and addresses, and about 7 A4 circular letters.

With both programs on the one disc, and the lists and circular letters on the same disc it is a simple matter to use Polymail to update your address lists and then go straight into Polyword to merge print the circular letters or labels.

If you run out of space and want to create a new list then copy the entire disc and erase all the letter files and all the .PMD and .PMR files from the copy. This gives you 108K free space.

POLYPLOT - Simplest Use of Discs

Polyplot is the only one of the 4 programs which does not allow you to change from disc to disc. So with Polyplot you must have all the necessary files on the one disc. The simplest way to achieve this is the following:-

1) Use DISCKIT to copy SIDE 1 of your master disc
2) Erase PP.COM and READ.ME from the copied disc
3) Use PIP to copy POLYPLOT.COM from side 2 of your master disc onto your working copy.

You can now use POLYPLOT accessing all 9 typefaces and storing up to 12 graphs files on the same disc.

APPENDIX F

ASCII FILES FROM LOCOSCRIPT

There are two problems with Locoscript. Firstly it is not a CP/M program so it is isolated from all the other programs on your PCW 8256. Secondly, Locoscript files are stored in a special format, which means they can only be used by Locoscript itself.

Most other computer programs can only deal with text that is in so called ASCII format. (ASCII stands for American Standard Code for Information Interchange) Version 1.2 of Locoscript provide a function which allows you to convert text from a Locoscript file to a pure ASCII file.

This is not just of use for producing text for Polyprint, it can also produce text for electronic mail services like Telecom Gold. The following procedure will convert a Locoscript file LOCO.TXT to an ASCII file called LOCOTXT.ASC. This process assumes you only have one disc drive. If you have a second drive you will be able to simplify it.

1. Load Locoscript main menu
2. Use arrow keys to select LOCO.TXT file
3. Press F7 --> Select Mode
4. Use Down Arrow to MAKE ASCII FILE - Press ENTER
5. Right Arrow to Pick destination M: - Press ENTER
6. Type new name LOCOTXT.ASC [DO NOT PRESS ENTER YET]
7. Use Down Arrow to PAGE IMAGE FILE - Press ENTER
8. Remove Locoscript disc - Insert Polyword disc
9. Press F1 to Change Disc
10. Use Arrows to put cursor on LOCOTXT.ASC
11. Press F3 to Copy file
12. Use Left arrow to pick destination drive A:
13. Press ENTER twice
14. Remove Polyword / Polyprint disc
15. Insert CP/M system disc (with J10CPM3.EMS)
16. Press SHIFT + EXTRA + EXIT all together
17. Remove CP/M disc - Insert Polyword / Polyprint disc
18. Type POLYWORD and press RETURN
19. Press RETURN to choose file
20. Type LOCOTXT.ASC and press RETURN

At this point you should see the contents of the LOCOTXT.ASC file on the Polyword editing screen. Each line in the file will end in a HARD RETURN - shown with a small arrow. If you want the document to be right justified by Polyprint you should remove these symbols using the ALT + U toggle hard return command then save the file on disc before using Polyprint to print it.

Note : the original text in Locoscript must be less than 80 characters wide (including any spaces for the left margin). Also it should not contain any special codes like BOLD, UNDERLINE etc.

APPENDIX G

USING DAISYWHEEL PRINTERS WITH POLYWORD

An option has been added to the print menu in Polyword which allows you to switch between the Amstrad PCW8256 dot matrix printer and a daisywheel printer. This means that you could use the dot matrix for drafting and then produce perfectly typed copy on the daisywheel.

To use a daisywheel printer on the Amstrad PCW8256 you must buy the CPS8256 Centronics Parallel/RS232 Serial Interface. It must be connected to the parallel printer port of the Interface and you must use a Centronics compatible parallel cable.

The printer is selected from within the Print Menu of Polyword. Selecting the 2nd option in the menu offers 5 print styles:-

```
HIGH QUALITY
DRAFT QUALITY
HIGH / BOLD
DRAFT / BOLD
DAISYWHEEL
```

If any of first four options is selected then the printer output is sent to the matrix printer with the appropriate print quality. To use the daisywheel printer select the 5th option in this menu. Now when you start printing the output is re-directed to the Centronics Parallel port and so to the daisywheel printer.

The daisywheel printer will stay selected until you reselect the print style or leave the Polyword program. Polyword always starts with the dot matrix printer selected.

With this feature in Polyword it is no longer necessary to use the DEVICE.COM program to set the LST device to CEN: Polyword does this for you.

You should note that not all printers have the same ASCII codes for their characters - so some characters may print differently on your Amstrad printer than they do on your daisywheel. For example, the code for a Pound sign will print as a hash symbol on a Juki 2200 daisywheel typewriter. To get a pound sign on the Juki you need to type a right curly bracket on the Amstrad 8256.

Only characters in the range 32 - 126 will be sent to the Daisywheel printer so none of the special foreign characters can be used. They can of course still be used on the matrix printer.

Also note that since there is no universal code to reset daisywheel printers Polyword sends a single carriage return to the printer before printing a document. You may need to take this into account when positioning your paper.

