Amstrad

Notepad

COMPUTER

Letter from the Chairman of Amstrad

Dear New Customer

I am first of all delighted to welcome you to the world of Amstrad, with your purchase of this new Notepad computer.

This product is known inside our company as my "BABY". The background to its inception stemmed from my personal desire to be able to use a computer.

Yes – I am embarrassed to say that, as the Chairman of one of Europe's largest manufacturers of computers, I have never been able to use one! A while ago I called a meeting with some of my engineering staff and explained that I wanted us to make a simple to use computer. I explained that I am not interested in knowing what's inside the machine and what the specification of the machine is. I just want a machine that is simple to operate and understand.

After many months of development and many meetings in which I was asked to give my opinion on the simplicity of its operation, this product evolved as what I perceive to be the first of a long line of a new generation of simple to use computers.

Although the Notepad is very simple to use, it should not be underestimated. I decided to write the first section (Section 1) of this instruction book to cover very simply the main functions for the first time novice user. The second section of the book has been written by the "BOFFINS" and uncovers a vast world of the machine's operation. If you still have any problems in understanding the Notepad, see page 215 for details of our telephone hotline support.

I am sure that if you have never used a computer before that once you have started to use the Notepad, you will be delighted with the results – so remember that it was AMSTRAD that put you in touch with the world of computing.

If you are delighted with your new skills, please show them off and recommend a friend or colleague. Help us to make AMSTRAD the entry-level computer standard.

Yours sincerely

Alan Sugar
Chairman

SECTION 1

The best way to follow this section is to read a bit and then do a bit! Have the machine in front of you and read carefully step-by-step.
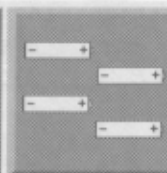
Take your time.

Setting Up

STEP 1:

Unpack the box and check you have the following items:

| NOTEPAD COMPUTER | BAG | 4 BATTERIES (Packed at one end of the styrofoam) | MAINS ADAPTOR | THIS BOOK |

STEP 2:

PLEASE FILL OUT THE WARRANTY CARD AND SEND IT OFF.

This will enable us to mail you from time to time on updates and improvements to your new Notepad.

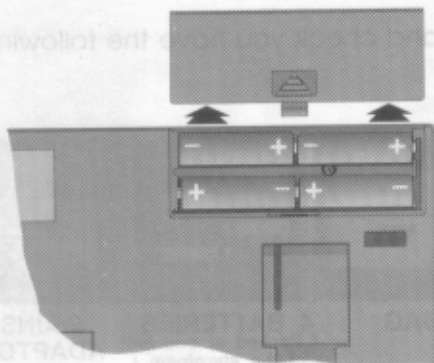**PLEASE KEEP ALL PACKAGING MATERIALS - BOX, STYROFOAM ETC IN CASE YOU NEED TO TRANSPORT YOUR UNIT.**

STEP 3:

To set up the Notepad, turn the unit face down and pull the white plastic film so that it comes COMPLETELY out of the Notepad.

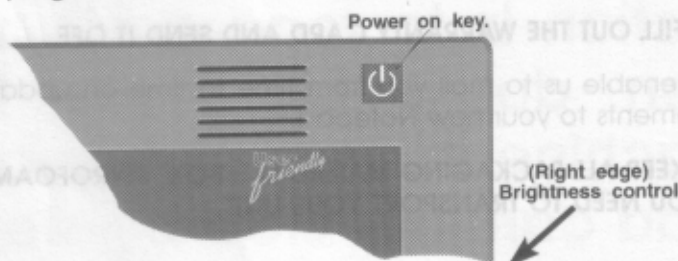**Pull out white plastic tab.**

PULL OUT BEFORE USE
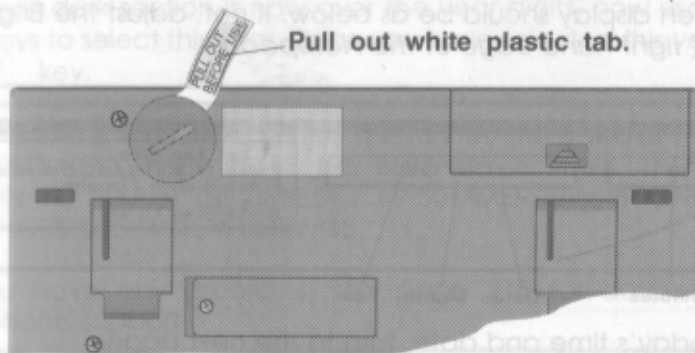
STEP 4:

Remove the main battery cover and insert the four batteries, as shown below:
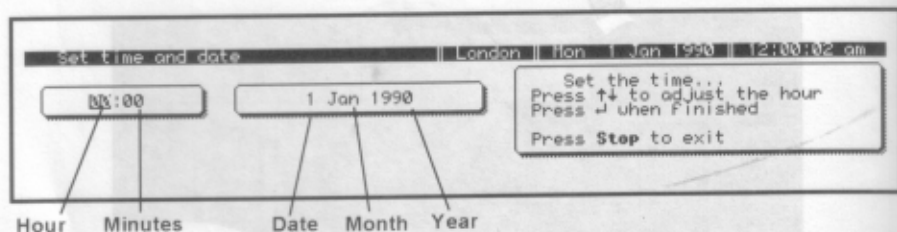

STEP 5:

Put the battery cover back on and turn the Notepad face up so you can see the keyboard and screen. Then press the POWER ON key (*top right corner of the Notepad*). See diagram below.

Power on key.

(Right edge)
Brightness control

The machine should make a 'bleeping' sound and the screen will come on.

The screen display should be as below. If not, adjust the Brightness control (*right-hand edge of the Notepad*):

| Set time and date | London | Mon 1 Jan 1990 | 12:00:02 am |

```
  BB:00              1 Jan 1990          Set the time...
                                         Press ↑↓ to adjust the hour
                                         Press ↵ when finished

                                         Press Stop to exit
```
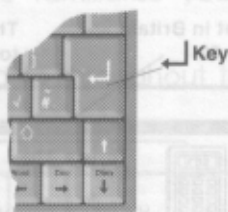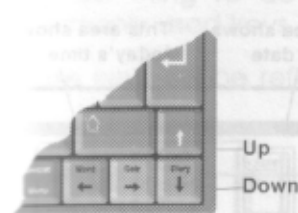
Hour   Minutes   Date   Month   Year

To set today's time and date, turn to the next page.

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On the left of the screen you will see a small dark section over the two zeros ØØ, these are the hour digits.

Set today's current hour by pressing the up or down keys ⬆ ⬇ *(you will use these keys many times in future so remember them).* Watch the screen while you are pressing the keys.

The Notepad is set to operate as a 24 hour clock. So, for example, set 5pm as 17 or 9am as 09.

Locate the ⏎ key *(you will use this key many times in future so remember it!)* See diagram above and press it ONCE ONLY.

The small dark section is now over the minutes digits so use the ⬆ ⬇ keys to set the minutes. Watch the screen while you are doing it. Once you have set the minutes, press the ⏎ key.

The small dark section is now over the date digit, so use the ⬆ ⬇ keys to enter in today's date in the month. Once you have set this, press the ⏎ key.

The small dark section is now over the month section, now use the ⬆ ⬇ keys to select this month, once you have selected this month, press the ⏎ key.

The small dark section is now over the year digits, now use the ⬆ ⬇ keys to select this year. Once you have selected this year, press the ⏎ key.

IF YOU MAKE A MISTAKE, PRESS THE KEY MARKED **MENU** (NEXT TO THE RED KEY), THEN PRESS THE **BLUE** KEY 6 TIMES. THEN START AGAIN. TO ADJUST THE TIME DUE TO SUMMER/WINTER ONE HOUR CHANGES, SEE SYSTEM SETTINGS.

If you have any problems, see page 215 for details of our telephone support

CONGRATULATIONS!

- You have now set up your Notepad.

This is how the screen should now look:

If you are not in Britain
turn to page 62

This area shows
today's date

This area shows
today's time
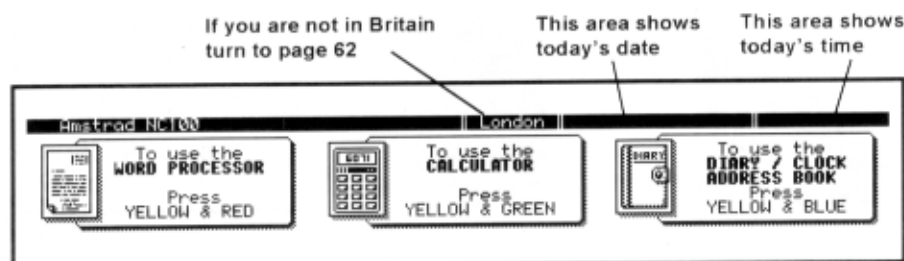
Using the Notepad with the Mains Adaptor

When you use the Notepad at home or at work, we recommend you use it with the Mains Adaptor provided. Simply plug the Mains Adaptor into any 240V 13 Amp wall socket and plug the lead into the back of the Notepad. Place the Notepad close to the socket to avoid unnecessary strain on the lead.
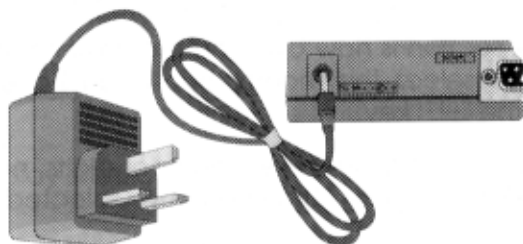
NEVER use other power adaptors - only use the Mains Adaptor supplied with the Notepad.

When you have finished using the Notepad, we recommend the adaptor is removed from the wall socket and the cable is removed from the rear of the Notepad.

NOW THE CLEVER STUFF!

Using the Notepad

STEP 7:

¬ne first thing to do is to familiarise yourself with the six most commonly used keys.

¬hese keys will be referred to throughout this section of the book as:

STOP   YELLOW   RED   GREEN   BLUE
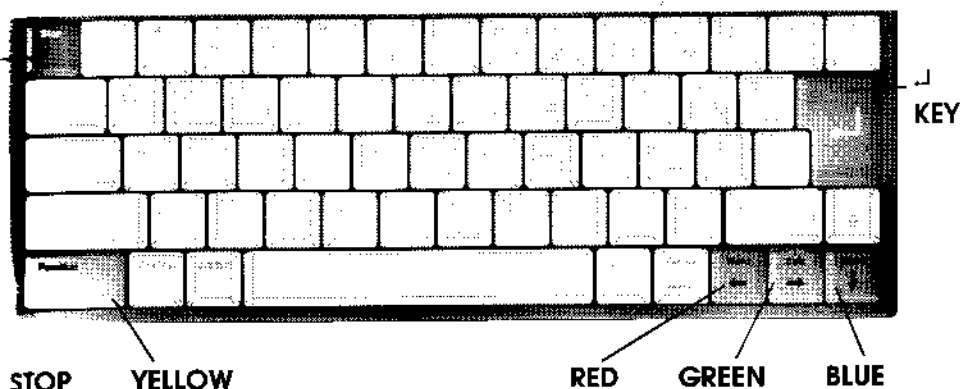
¬ some cases you will be asked to press both the Yellow and Red keys, or the Yellow and Green keys or Yellow and Blue keys. The best way to do this is to press and hold down the Yellow key first with one finger followed by the other coloured key with another finger.

After pressing the POWER ON key any time in the future, you will generally return back to the screen shown below. There are three main function areas or sections. We shall refer to this in future as the MAIN SCREEN.
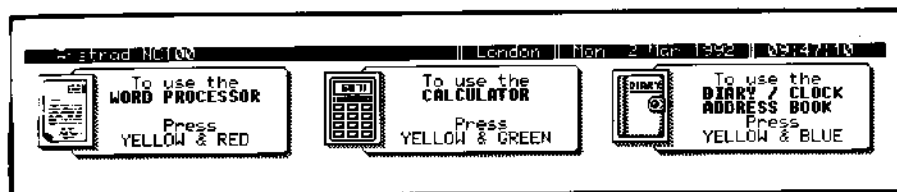
To use the Calculator

Most of us know how to use a calculator. As this is an easy function for most of us to understand, we shall start with this section first of all.

Do as the main screen says - press the Yellow and Green keys AT THE SAME TIME.

```
Use the GREEN numbers on the keyboard       0.
        Press Stop to exit
```
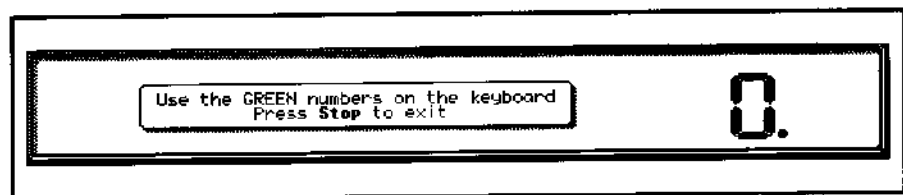
As you can see from the new screen message above, you are invited to use the green numbers/characters on the keyboard. To use the calculator, use only the keys with green characters. No others will have any effect.
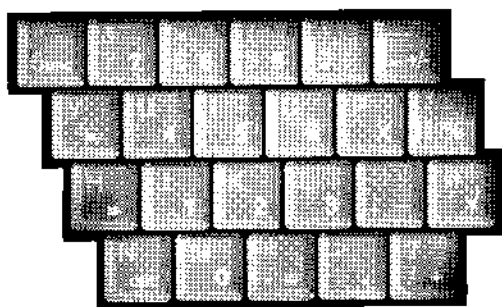
We assume you are familiar with the functions of a calculator and so we have no more to say in this section other than to advise you how to get back to the main screen. When you have finished using the calculator, simply press the ⌂ᵗᵒᵖ key (*top left corner*).

If you leave the Notepad switched on without using the keyboard for more than five minutes, it will automatically switch off. Simply press the power key and the screen will return.

Using the Word Processor

For those of you who have used a typewriter or computer before we apologise now for boring you. Throughout this section of the book we are assuming the user is a novice.

After returning to the main screen or switching on the Notepad again the main screen will appear.

```
┌─────────────────────────────────────────────────────────────────┐
│  Amstrad NC100          London    Mon  2 Mar 1992    09:47:10     │
│                                                                   │
│  ▦  To use the      ▤  To use the       ▨  To use the            │
│     WORD PROCESSOR     CALCULATOR           DIARY / CLOCK         │
│                                             ADDRESS BOOK          │
│        Press             Press                 Press             │
│     YELLOW & RED      YELLOW & GREEN        YELLOW & BLUE         │
└─────────────────────────────────────────────────────────────────┘
```

To use the word processor section simply follow the instructions on the screen and press the Yellow and Red keys.

This operation will bring you to a new screen as below:

```
┌─────────────────────────────────────────────────────────────────┐
│  Word processor menu    London    Mon  2 Mar 1992                 │
│                                                                   │
│  ▦  START A NEW      ▤  LIST STORED      ▨  PRINT                 │
│     DOCUMENT            DOCUMENTS            DOCUMENT             │
│                                                                   │
│        Press             Press                 Press             │
│         RED              GREEN                 BLUE              │
└─────────────────────────────────────────────────────────────────┘
```

The first message on the left is to start a new document, so we will use this first of all and ignore the other two messages for the moment. Follow the instructions and press the Red key ONLY.

After pressing the Red key, the next screen *(as shown below)* will invite you to give the new document/letter a name. The reason for giving it a name is so you can identify it amongst a list of many documents you will produce in the future.

```
Please type a name for the new document and press ◀ ■▒▒▒▒▒▒▒▒▒
```

Follow the instructions and give the document a name by typing it in. For example, let's call this document **first**. Simply type in **first** by pressing the F I R S and T keys on the main keyboard and press the ⏎ key (*REMEMBER WE TOLD YOU YOU WILL USE THIS KEY A LOT*).

As you will see from the new screen below, the dark line at the top shows the Document Name, and also that you are on page 1.

```
Document first        Page 1    Press Stop to Finish or print    13:52:32
◀Start typing new text here
```

In the left corner on the second line you will see a rectangular shaped block flashing on and off. This item is called a CURSOR. Remember the word CURSOR - we will refer to it many times in the future.

You will also see the message:

← Start typing new text here

As soon as you hit any key this message will go away.

STEP 11:

Before we go any further you will need to learn some simple principles to do with typing. (*For those who already know it all - SORRY.*)

Press the ⏎ key five times. You will see the cursor move down the screen.

Now locate the keys shown below:
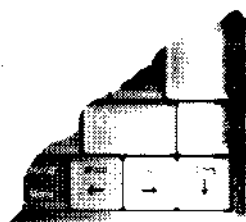
As you will see, they all have arrows on them, pointing in different directions.

Press the Green key four times and you will see the cursor move to the right.

Now press the ⬆ key four times and you will see the cursor move up the screen.

Now press the Red ⬅ key four times and you will see the cursor move to the left.

Finally, press the Blue ⬇ key four times and you will see the cursor move down the screen.

f you imagine a cluster of arrow keys as shown below the cursor will move in the direction of the arrow you press.

Now type in the following:-

amstrad

.ou will see the cursor is flashing at the end of the word.

.ocate the keys shown below (*top right corner*).

Press the ⌨ key three times and you will see three letters disappear (*The Boffins say were DELETED. Got it? Del is short for DELETE*).

Press the Red ⌨ key four times and you will see the cursor is now over the letter **a**

Now press the ⌨ key four times and you will see the remaining four letters are deleted.

You can imagine now that all letters LEFT of the cursor will be deleted when you press the ⌨ and all letters RIGHT of the cursor will be deleted when you press the ⌨ key.

Now type in the word:

amstrad

Then locate the large bar at the bottom of the keyboard as shown below (*This is known as the space bar*).
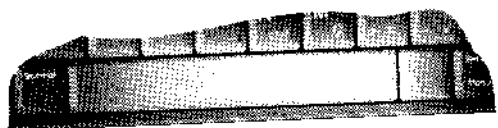
Press the bar once and you will see the cursor jump to the right of the word **amstrad**.

Now type in:

Notepad

You will see the two words are now spaced apart.

Any time you wish to space words apart, simply use the space bar

Now you have experienced these features it's time to write you first document.

Press the ⌨ key and hold it down to clear the screen.

Now off you go - DO IT!

STEP 12:

Why don't you type in:-

this is the first time i have ever used a computer

You will now see the CURSOR flashing at the end of your sentence. Now press the ⏎ key (*you must remember this key by now!*) and now type in:-

this is the second line of the first document i have ever written on a computer

As you can see, what you have written on the second line was too much for one line and it has overlapped onto the third line.

Now press the ⎇[Stop] key (top left corner).

CONGRATULATIONS!

- you have written your first document on a computer.

To write a second document, press the Red key and once again type in a name for the second document. Let's call this one **second**. Don't forget to press the ⏎ key (*that key again!*)

Now type the following:

i seem to be getting good at this now

Once again press the ⏎ key.

Now type:

i have noticed there are no capital letters in my sentences

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It is true - so far everything you have written is in lower case letters (*Boffin talk for non capital letters*). On the keyboard locate the keys shown in the diagram below. These are known as the SHIFT keys.
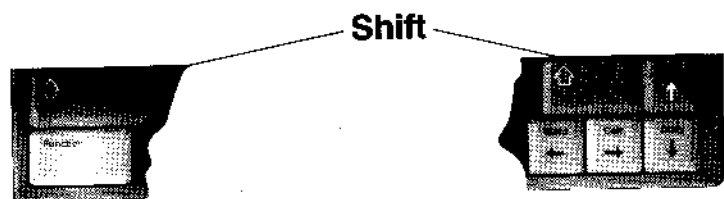
Shift

Press the ⏎ key.

Now hold down either of the above shift keys with one finger and type the following with another finger:

THIS LINE IS ALL IN UPPER CASE

(Upper Case is Boffin talk for Capital letters)

Press the ⏎ key again.

This time type in the following sentence but put capital letters (upper case) and lower case letters where they are expected to be. Do this by holding down a SHIFT key only when you wish to type a capital letter, and release the SHIFT key when you type lower case letters.

Now I am getting quite good on this Notepad

Press the ⏎ key again.

Look at the dark line at the top of the screen and you will see it says **Press STOP to finish or print**.

It should be noted at this time that the STOP key *(top left corner)* is going to be a very good friend to you, as pressing it will always take you out of what you are doing and back to the previous screen.

So press STOP now, then press it again. You will see you are now back at the original main screen.

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Now press Yellow and Red (at the same time). As you will see, you are back to the second screen in the word processing section. You have used the Red key message to the left to write two documents and we have so far ignored the other two messages.

We will now explore the middle message so press the Green key as it asks.

```
████ Select use ↑ ↓ ← →  and press ↵  ‖ Menu for options ‖ Stop to exit
second
```

The screen shows a list of the two documents you have written. Locate the ⬆️ ⬇️ keys (bottom right corner).

By, pressing the Blue ⬇️ key you will see the dark band move from the word **first** onto the word **second**.

By, pressing the ⬆️ key once you will see the dark band move back to the word **first**. If you have lots more documents in the notepad you can move the dark band up and down this screen with the ⬆️ ⬇️ keys to locate on any of your document names.

The dark band is now over the word **first** so press the ↵ key (yes - me again!) and you will see your first document appear. Now press the [Stop] key (life saver) and you will come back to the second word processor screen.

Press the Green key again and this time move the dark band down over the word **second** by using the Blue ⬇️ key and then press the ↵ key and you will see your second document appear.

Press the Blue ⬇️ key four times and read on.

Some Useful Tips

Now you can practise writing a new document. After reading these tips, go back to page 7 and do it all again, but this time write what you want, call the documents what you want and generally find

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your way around these areas. Remember, the 🔲 Stop key will bring you out to the previous screen message.

One other tip to remember is that by using our good old friend the 🔲 key you can skip lines and space out your sentences in any document you wish to write. For example, as soon as you get into the new document section where the cursor is flashing in the corner and you are invited to ← start typing new text here you can press the 🔲 key a few times first. This will mean that when you finally print out your document the writing will not start right at the top of the page/paper. Similarly, after you have typed in a few lines, if you want to space the next paragraph away from the first, you can use the 🔲 key. Try it now!

Another useful tip is if you wish to type everything in capital letters and you don't want to hold your finger on the SHIFT key all of the time, simply press the key marked CAPS LOCK once (*third from the bottom on the left*) and everything you type will appear in upper case letters (*capitals*).

To get back to normal lower case use just press the 🔲 Caps Lock key once again.

The final tip is to advise you how to use the characters which are printed above the number keys on the top row of the keyboard, or indeed how to use any character that is printed on the top of a key.

These can be used by pressing the SHIFT key with one finger and pressing the character you wish to use with another finger.

For example, let's say you wish to use the & sign, which is located above the figure 7 on the top row of the keyboard. Simply hold down the SHIFT key with one finger and press the &/7 key with another. Do this a few times. Now release the SHIFT key and press the &/7 key again and you will see it prints 7. Holding down a SHIFT 🔲 key makes another key print the character shown on its top section.

Now press the 🔲 Stop key twice to exit to the main screen.

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If you leave the Notepad switched on without using the keyboard for more than five minutes, it will automatically switch off. Simply press the power key and the screen will return.

So far the instructions you have been given for the word processor section have been very basic. There are many other functions and wonderful things that can be done within this section. All of the features of the word processor are explained in greater detail in the second section of this book.

If you have any problems, see page 215 for details of our telephone hotline support.

STEP 14:

Using the Spellchecker Dictionary

Inside the micro chips and memory of this machine there is a 48,000 word dictionary and function which allows you to check if you have spelt words correctly. This facility also allows you to spell a word correctly whilst you are in the middle of writing a document.

To demonstrate the spellchecker and dictionary function, return to the main screen by pressing the [Stop] key. As usual press the Yellow and Red keys together, followed once again by the Red key only and type in the name of this new document **SPELL** and press the ↵ key.

Now type in the text shown below, which as you can see has many spelling mistakes. Please type it in exactly as you see it below and do not alter it at all.

```
Document spell          Page 1        Press Stop to finish or print     14:1
We are going to writte a  memo  with  delliberate mistakkes so that we
can use the spellchecker. We are also  going  to write in a word which
not only is spelt wrong but is actually  the lefft word we mean to use
n this particular sentence written on the NC100.█
```

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Now place one finger on the Yellow key and press the 1 key located next to the [Stop] key. You will now see the screen as shown below.

```
┌──────────────────────────────────────────────────────────────────┐
│ ▓document spell▓          Page 1        ▓Press Stop to finish or▓ │ ▓writte▓
│ We are going to writte a memo with delliberate mistakkes │Select option
│ can use the spellchecker. We are also going to write in a│L - Lookup word,
│ not only is spelt wrong but is actually the lefft word we│S - Store word,
│ in this particular sentence written on the NC100.        │I - Ignore word:
│                                                          │E - Edit word: ▓
└──────────────────────────────────────────────────────────────────┘
```
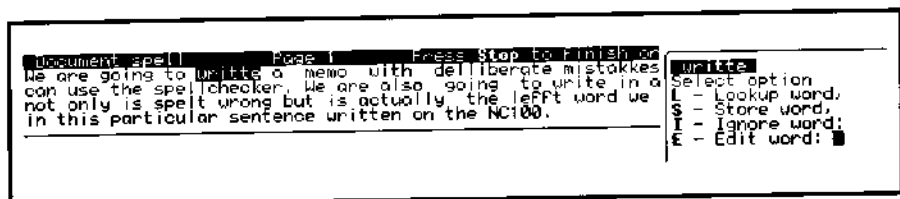
On the right-hand side of the screen you will see the word **writte** highlighted in a dark bar. On the left-hand side of the screen you can see the same word **writte** also highlighted. This is the first mistake in your document. What the spellchecker is doing is asking you a list of questions which can be seen on the right-hand side of the screen.

```
┌────────────────────┐
│ ▓writte▓           │
│ Select option      │
│ L - Lookup word,   │
│ S - Store word,    │
│ I - Ignore word:   │
│ E - Edit word: ▓   │
└────────────────────┘
```
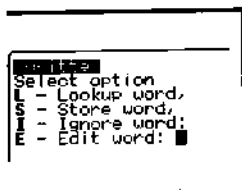
Obviously this is an incorrectly spelt word and the first question **L** invites you to look up a word which you meant to use. Therefore press the letter L on the keyboard. As soon as you press the letter L you will see on the right-hand side of the screen that the Notepad is looking for words which are similar but spelt correctly and as you can see from the display below, the Notepad has given you a choice of three words which it thinks you really meant to use.

```
┌──────────────────────────────────────────────────────────────────┐
│ ▓document spell▓          Page 1        ▓Press Stop to finish or▓ │Press ↑↓ to select
│ We are going to writte a memo with delliberate mistakkes │Press Stop to exit
│ can use the spellchecker. We are also going to write in a│▓writte▓
│ not only is spelt wrong but is actually the lefft word we│written
│ in this particular sentence written on the NC100.        │write
└──────────────────────────────────────────────────────────────────┘
```
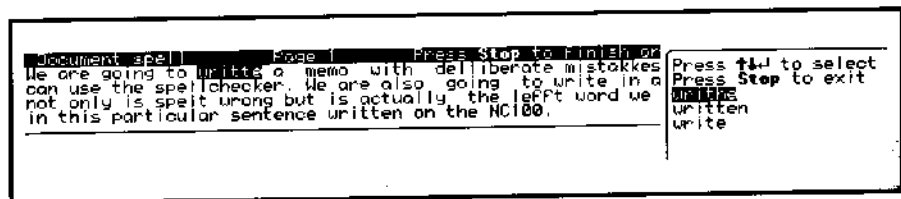
Obviously we meant to use the word **write**. By using the Blue [↓] key you can move the dark bar down onto the word **write**. Once you have done this press the [↵] key. You will notice on the left-hand side of the screen in your document the word **write**

has been corrected but a new incorrectly spelt word has been found.

Once again press the letter L to look up the word. As you will see, the Notepad has found the correct spelling of the word **deliberate**. Once again press the ⏎ key. You will see the word **deliberate** has been corrected in your document and the Notepad has found another spelling mistake. Once again, press the L key and as you will see, the Notepad again finds the correct spelling so press the ⏎ key again to correct the word in your document.

You will now see from the diagram below that the Notepad has stopped on the word **spellchecker**.

```
┌──────────────────────────────────────────────────────┬────────────────────┐
│ Document spell          Page          Press Stop to ...h or│ spell checker      │
│ We are going to write a  memo  with  deliberate mistakes so│ Select option      │
│ can use the spellchecker We are also  going  to write in a │ L - Lookup word,   │
│ not only is spelt wrong but is actually  the lefft word we │ S - Store word,    │
│ in this particular sentence written on the NC100.         │ I - Ignore word:   │
│                                                           │ E - Edit word: ■   │
│                                                           │                    │
└──────────────────────────────────────────────────────┴────────────────────┘
```
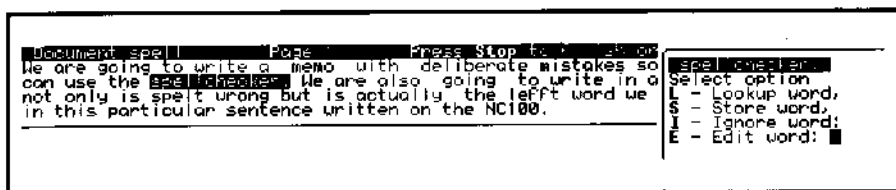
You may be wondering why it has stopped on this word, as clearly it seems to be spelt correctly. The reason for this is that *spellchecker* is not really a word usually found in a dictionary. It is a name given to something, similar to your own name or your company's name which, of course, you would not expect to find in a dictionary. However, the dictionary inside the Notepad will always stop on things that it cannot recognise. Two of the questions on the right-hand side of the screen; **S - Store word** or **I - Ignore word** can be used in these circumstances. If the word *spellchecker* s something very common to you and you are always going to use t in your documents in the future, then what you can do is to store t in the memory of the Notepad so that if you ever use it again the Notepad dictionary will ignore it if it is *spelt correctly*.

Let us in this instance decide to store the word *spellchecker* in the dictionary for future use. Press the letter S. The word *spellchecker* has now been stored in the dictionary. If you ever use it again in one of your documents it will be ignored if *spelt correctly*. This facility is very useful if you are going to use a name or term many times in your documents which is not normally found in a dictionary.

As you will see, the spellchecker has now found another incorrectly spelt word (`lefft`). However, when we wrote this sentence we did not really mean to use this word. Not only is it spelt incorrectly but it is not the word we wanted to use. In this case you can use the question on the right-hand side `E` - `Edit word`. Press the E key. As you will see the cursor is now at the end of the word `lefft`. By using the ⌫ key, delete the whole word `lefft` and then type in the word `wrong`, then press the ⏎ key.

Finally, you will now see that the Notepad has found `NC` 100. The reason is obvious - this is the prefix of a model number of the Notepad and no-one would expect to find this in a dictionary. You may decide that you wish to refer to this prefix many times in future documents that you write, in which case you can decide to store it in the dictionary by pressing the S key as we did before with the word *spellchecker*. However, it is unlikely that you would wish to use a model number such as this again and therefore you can simply advise the Notepad's spellchecker to ignore it by pressing the `I` - `Ignore word`. As you will see, after pressing I, the Notepad's spellchecker has completely checked the entire document.

As usual, press ⏹ to exit and press ⏹ again to return to the main screen.

If you have any problems, see page 215 for details of our telephone support

STEP 15:

Using the Spellchecker to assist you in spelling a word correctly whilst writing a document.

It is annoying sometimes when you are writing to find that you have forgotten how to spell a certain word. The next demonstration will show you how to use the Notepad's spellchecker to assist you in finding the correct spelling of a word whilst you are writing a document.

Starting from the main screen, press the Yellow and Red keys together, followed by the Red key only. Type in a name for the new document; let us use `HOWSPELL`, then press the ⏎ key as usual.

Type in the following text:

The library has many versions of the encyclopaedia

For those clever ones amongst us, you will see from the above that we have indeed spelt the word **encyclopaedia** correctly. There are, however, those of us that are not so confident in our ability to spell correctly. With the cursor flashing at the end of the word **encyclopaedia** hold down the Control key with one finger (*the Control key is next to the Yellow key on the bottom row of the keyboard*) and press the 1 key (*next to the* [stop] *key*) and you will see that the top (*dark*) line of the screen states - **Word is in dictionary**. This means that the word is spelt correctly and, therefore, you can simply carry on typing.

Now carry on typing and add the following (*exactly, do not alter*):-

There does not seem to be enough space to accomodate

Once again, for those of us who are not so sure, the word **accomodate** may be spelt incorrectly. With the cursor flashing at the end of the word **accomodate** hold down the Control key with one finger and press the figure 1 key. As you will see from the screen, the word has been picked up by the Notepad's spellchecker as incorrect. Simply press the letter L to look up the correct spelling of the word. When the Notepad has found the correct spelling of the word, press the [↵] key. The word **accommodate** has now been corrected and you are able to continue typing the rest of your document.

As usual, press the [stop] key to exit and press the [stop] key again to return to the main screen.

We suggest that you experiment in this area and we are sure that you will find the spellchecker section a great help in the future use of this product.

How to print out your Documents

The matter of printing out documents can become very complicated and is covered in much more detail in the second section of this book (*page 99*). **This may be obvious, but we'll say it anyway (*Sorry*). To print a document you need a printer.**

These days, most printers have a socket on the back of them named PARALLEL.

You will see on the back of the Notepad that it also has a **PARALLEL** socket.

With the Notepad switched off the first thing to do is to **connect** the Parallel socket on the Notepad to the Parallel socket on the printer with a cable (*known as a printer cable, usually included with a printer*).

To progress any further the next advice is maybe also obvious but we will say it anyway! SORRY AGAIN.

Make sure the printer is switched on with paper in it and it is set up ready to print, according to the manufacturer's instructions.

Once connected to the printer press the Notepad's POWER ON key.

Then press the Yellow and Red keys, followed by the Blue key and your list of stored documents will appear as you will see from the screen below:

```
To print use ↑ ↓ ← → and press ↵    Menu            Stop to e
First
houspell
second
spell
```
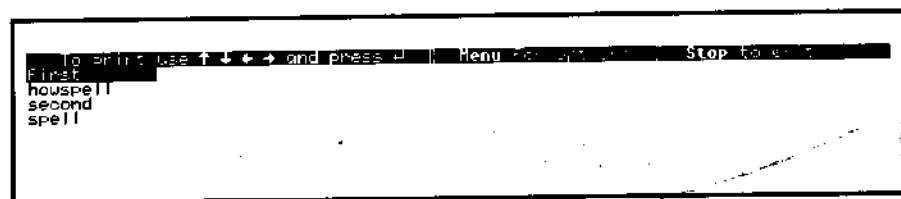
Using the ⊤ ⊥ keys, move the dark band over the document you wish to print and press the ↵ key.

Your document will now print out on the printer.

Press the [Stop] key twice to return to the main screen.

GENERAL NOTE

One of the virtues of the Notepad is that it is portable. This means you can take it with you wherever you go. In most offices or hotels in Britain or, indeed, anywhere in the world, printers are used. When visiting you can simply plug the Notepad into most printers and print out what you want there and then.

IF YOU HAVE A PROBLEM PRINTING WE SUGGEST YOU CALL OUR HOTLINE. SEE PAGE 215.

STEP 17:

Using the Diary/Clock/Address Book Section

So far we have used the word processor and calculator section on the main screen.

Now we will explore the other section on the main screen, the Diary/Clock/Address Book section.

As directed by the main screen, press the Yellow and Blue keys. You will now see the new screen as shown below.

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Using the Address Book

You will notice that the new screen is broken up again into **three** main sections. For the purpose of this exercise we will concentrate first of all on the Address Book section. The Notepad has a section within it that allows you to store names and addresses, telephone numbers, fax numbers, and car phone numbers of all your associates, relatives, companies etc.

STEP 18:

Press the Red key as indicated. You will see from the display below the new screen which should be considered as a blank page in your address book.

As you will see, the dark cursor is positioned in the top left-hand corner of the page next to the section marked **Name**. Let us now enter an example name and address so follow these instructions.

With the cursor in the top right-hand corner, type in:

Amstrad plc

and press the ⏎ key

Now type in:

169 Kings Road

and press the ⏎ key

Now type in:

Brentwood

and press the ⏎ key

22

Now type in:

Essex CM14 4EF

and press the ⏎ key again.

You will notice that the cursor is now sitting under the **E** of **Essex**. Press the ⏎ key again. You will now see the cursor is in line with the word **Telephone**.

Now type in:

0891 808181

and press the ⏎ key.

Now type in

0277 211350

As you will see, the cursor is now at the end of the fax telephone number.

You have now entered your first name and address in the address book section. Press the [Stop] key twice which will return you to the second screen of the Diary/Clock/Address Book section.

STEP 19:

Now press the Red key again.

As you will see from the screen display below, on the right-hand side there is a list of questions. Across the question **Browse** you will see a dark band. By using the ⬆ ⬇ keys you can move this dark band up and down. By using the ⬆ key, move the dark band to the top item **A – Add new address** and press the ⏎ key.

```
 Address book      : London | Wed 18 Mar 1992 | 5:06:48 pm
Name     : Amstrad plc
Address  : 169 Kings Road                      (A)dd New Address
         : Brentwood                           (E)dit Address
         : Essex CM14 4EF                       (F)ind Address
                                               (D)elete Address
Telephone : 0891 808181                          |◄| Browse |►|
Fax       : 0277 211350                         press Stop to exit
```

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As you will see, you will turn to the next blank page in your address book. In order to explain to you the full features of the Address Book we will need to type in four more names and addresses. When typing, remember all the keys which you used in the word processor section such as ⌐ , SHIFT, Spacebar, ↵ , have the same function in the address book. So if you make mistakes or need upper or lower case, use the keys as you would in the word processor section.

STEP 20:

Now type in the following (*COPY THEM EXACTLY*). Remember, when you are at the end of a line, to press the ↵ key.

John Smith
1000 High Street
Braintree
Essex CM7 8QN

0222 215555   Car Phone 0850 555123
0222 215556

The cursor is now at the end of the fax telephone number. Press the ↵ key and you will see that once you have filled up a full page of the Address Book by pressing the ↵ key you will move on to the next page.

Now type in:

Brian Layer
The Essex Brick Co Ltd
Old Kiln Works
Chelmsford
Essex CM0 7DY
0245 123456
0245 789000

As you are now at the bottom of another page in your Address Book, press the ↵ key to bring you to the top of a new page.

Now type in:

Doctor Jones
The Medical Centre
High Street
Southend on Sea
Essex   SS3 9QY
0702 987654   Emergency No 0702 133444
0702 123456

As the cursor is now at the end of the page press the ⏎ key which will once again take you to the top of the next page Now type in:

Star Garage
Chiltern Works
Green Street
Basildon
Essex SS15 6DU
0268 515151   Ask for PETER BROWN
0268 121212

The cursor is now at the end of the fax telephone number. Press ⏎ to exit.

You have now entered a total of five names and addresses. As you can see from the screen below, the last entry is showing on the screen.

```
┌─────────────────────────────────────────────────────────────────┐
│ ▌Address book▐          ▌London ▐ Mon  9 Mar  1992 ▐ 13:30:55▐   │
│ ame    :  Star Garage                        ┌──────────────────┐│
│ addres :  Chiltern Works                     │ [A]dd New Address ││
│        :  Green Street                       │ [E]dit Address    ││
│        :  Basildon                           │ [F]ind Address    ││
│        :  Essex SS15 6DU                     │ [D]elete Address  ││
│ elephone: 0268 515151   Ask for PETER BROWN  │▌ [←] Browse [→]  ▐││
│        :  0268 121212                        │ press Stop to exit││
│                                              └──────────────────┘│
└─────────────────────────────────────────────────────────────────┘
```
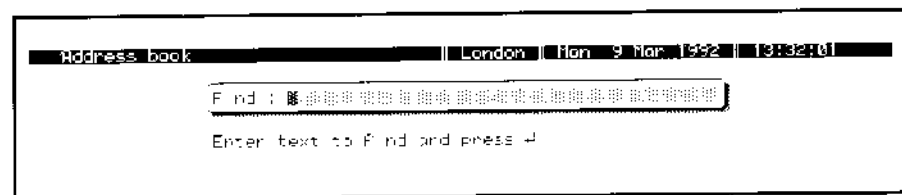
You will also notice that the dark band on the right- hand side is over the word **Browse**. By using the Red or Green keys you can browse through the list of names and addresses you have in the Address Book.

Press the Red key now and you will see it will take you to one of the other names in the Address Book. Press it again and again and it will take you through all the addresses that we have put in the Address Book.

Pressing the Green key will do exactly the same but in the reverse order.

As you can see from the right of the screen, there are five different facilities in the Address Book section. One of the most interesting is the facility **Find Address**. To get into the **Find Address** section use the ⬇️ key by moving the dark band on to **Find Address** and press the ⏎ key.

As you will see from the screen below, you are invited to type in the address or the name that you wish to find.

```
████ Address book ████████████████ ██ London ██ Mon  9 Mar  1992 ██ 13:32:01 ██████

              ┌ Find : █ ████████████████████████████████████████████████ ┐

              Enter text to Find and press ⏎
```

This is an excellent facility. As you know, when you are thinking about somebody or some company there are certain things that you remember them by. You cannot for example, remember their address. You cannot remember in some cases their full name. You cannot remember in some cases their telephone number. The screen above allows you to type in whatever you can remember about the Address Book entry you are trying to find.

Let us for example say that we are trying to find the address book entry of the local garage. All we can remember is that the garage is in **Chiltern Works**. Type in **chiltern Works** and then press the ⏎ key. As you will see the Notepad will immediately take you to the address book entry of the Star Garage.

Now let us try another example. Let us say we wish to find the telephone number of Amstrad but we can only remember the name **Amstrad**. Once again move the dark band over **Find Address** and press the ⏎ key. You will see the name **Chiltern Works** is still on the screen. Ignore this and simply type in **Amstrad**. You will see now that the old message **chiltern Works** has gone and **Amstrad** is now on the screen.

Once again press the ⏎ key and you will see the Notepad will take you immediately to the Address Book page for Amstrad.

You will notice on the right-hand side of the screen where the five messages are that four of the messages start with a Bold Capital Letter **A E F D**. Instead of using the ⬆ key to move the dark band on to the message, there is a quicker method to use and that is simply to type in the **Bold Capital Letter**.

Address book		London || Mon 9 Mar 1992 || 13:38:42

Find : Amstrad

Enter text to find and press ⏎
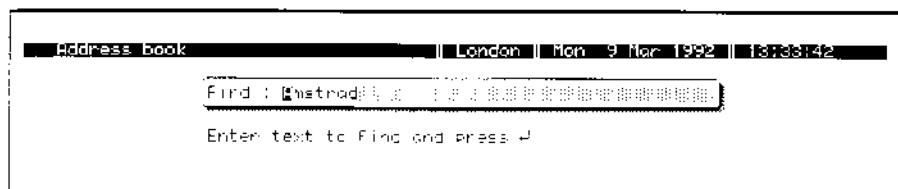
As an example, let us try to find the **Doctor's** telephone number. Simply press the F key. As you will see, the Notepad moves to the screen with **Amstrad** still showing from our last exercise.

Now type in **Doctor** and press the ⏎ key. You will see the Doctor's name and address appear on the screen.

If any of the details in your Address Book entries change, you may wish to edit them. For example, the Doctor may change his telephone number.

As you have the Doctor's name and address on the screen, let us imagine that he has changed his telephone number and you wish to replace it in your address book.

As you will see, on the right-hand side of the screen, to edit the address book simply press the E key. After pressing the E key, you will notice that the cursor is at the end of the first line. By using the ⬇ key, bring the cursor down to the line which you wish to change (*telephone*). By using the Red key, bring the cursor along the line to the beginning of the line. The cursor is now at the beginning of the telephone number. By using the ⬅ key delete the telephone number until the cursor is positioned left of the word **emergency**.

Now type in the new telephone number **0702 11444** and press to exit.

You will now see that you have deleted the old telephone number and entered a new one.

If, for example, you wish to delete a whole page of your Address Book, first of all find the page you wish to delete. Let us say we wish to delete The Essex Brick Co. Ltd. Press the F key and type in **Brick**. As you will see, the name and address of The Essex Brick Co. Ltd. will appear.

Now press the D key on the keyboard and as you will see from the screen shown below, you will be asked if you wish to delete this address.

```
  Address book                    London  Mon  9 Mar 1992    13:36:18
Name       Brian Layer                              A)dd New Address
Address    The Essex Brick Co Ltd                   E)dit Address
           Old K                                    F)ind Address
           Chelm   Delete current address ?         D)elete Address
           Essex   Press Y For Yes or N For No      (←) Browse (→)
Telephone  0245                                     press Stop to exit
Fax        0245 789000
```

If you do, you should press the Y key on the keyboard and if you have had second thoughts and do not wish to delete it, press the N key on the keyboard.

In this case we have decided to delete The Essex Brick Co. Ltd., so press the Y key. Now by using the **Browse** function (Red and Green keys) you will see that The Essex Brick Co. Ltd. is now longer in your address book.

We now suggest that you type in a few of your most important names and address and explore the full use of the questions on the right-hand side of the screen (Menu of Questions). You can, of course, delete the examples that we have typed in when you are practising in this area. One tip to remember is the most useful function of this section is that you can simply type in any name, word, town, village, building name, phone number or even a post code to find the Address Book page you are looking for.

So, If all you can remember about John Smith is that he lives in
Braintree, type in **Braintree**. Or if all you can remember about
the Doctor is the fact that he is a Doctor, type in **Doctor**. If you
have entered your aunty's details into your address book and you
wish to send her a birthday card and cannot remember her address
but can remember her phone number, simply follow the procedure
by typing in her phone number and her full details will appear.

When you have finished using this section of the Notepad, press
twice to exit to the main screen.

If you leave the Notepad switched on without using the
keyboard for more than five minutes, it will automatically switch
off. Simply press the power key and the screen will return.

STEP 21:

Using the Calendar/Diary Section

press the Yellow and Blue keys. As you will see the screen is in three
sections. We have already explored the Address Book section and
now we are ready to explore the Calendar/Diary section. Do as the
screen says and press the Green key.

The screen diagram below will display on the left side your location,
date and actual time, in the middle there will be the actual month.
On the right-hand side you will see a cluster of four arrows.

Time Zone : London	Mon Tue Wed Thu Fri Sat Sun	To make a diary entry select date using the ◄↑↓► keys and press ↵
Monday 16 Mar 1992 2:13 40 PM	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1991 ↑ February ◄ ► April ↓ 1993

The four arrows have a very simple purpose. The arrow pointing to
the left means the Red [Word] key. By pressing it continually the
cursor will reach the left-hand line and automatically change the
month to last month. (*You must watch the screen while you are
pressing keys.*) If you continue to press the Red [Word] key the month
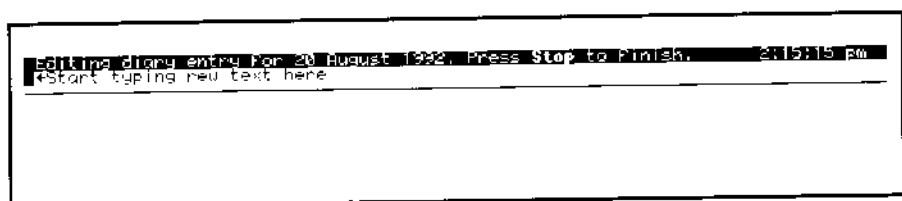will continually change downwards. By pressing the Green [Calc]

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key the cursor reaches the right-hand line and the months will start to increase. By pressing the Blue ⌜↓⌟ key, when the cursor reaches the bottom of the screen the year will change upwards. And finally, by pressing the ⌜↑⌟ key, when the cursor reaches the top the year will change downwards.

We suggest that you experiment by moving the cursor around with the arrow keys and watch the changes on the screen carefully. Do this for a few minutes and then return back to the actual month and year. This facility obviously enables you to look forwards or backwards to any date in the past or in the future.

STEP 22:

Making a Diary Entry

To make a diary entry locate the correct month and year by using the arrows as described above in Step 21. Once you have the correct month and year use the arrow key again to move the cursor to the correct day in the month that you require. Once the cursor is over the correct day in the month that you require, press the ⌜↵⌟ key. As you will see from the diagram below, you are invited to type in your diary entry.

```
Editing diary entry for 20 August 1992. Press Stop to finish.       2:15:15 pm
↑Start typing new text here
```

Let us for example type in the following:

Remember to take car in to garage

Now press the ⌜s⌟ key.

You will notice that when the screen returns the cursor is in the same place over the day that you chose, but there is now a star ✷ by the date that you chose. Using the arrow keys again, move the cursor around within the same month to another date further on in the month and press the ⌜↵⌟ key. Type in another example message and finish by using the ⌜s⌟ key.

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You will now see that the two dates in the month are both marked with a star. The reason for this is that when you are browsing through the various months, any date which has a star by the side of it means there is a message in the diary. If you wish to look up any date in the month which has a star by it, simply move the cursor over the date which has a star by using the arrow keys and once the cursor is in place press the ⎡⏎⎤ key and you will see your diary entry appear.

One very good feature of the diary section is that once you have put a diary entry in for a certain date, when you switch the Notepad on for the first time that day the top dark band line of the screen will flash on and off and the Notepad will make a bleeping sound reminding you that there is a diary entry. Simply press the ⎡⏎⎤ key and your diary entry will appear.

Once you have read the diary entry press the ⎡stop⎤ key. As you will see from the screen diagram below, you are asked if you wish to remove the diary entry or not. Simply follow the instructions. If you wish to remove the diary entry press   Y.

```
┌──────────────────────────────────────────────────────────────┐
│ ▌Diary entry▐              London ‖ Thu 20 Apr 1992 ‖ 12:01:11 am  │
│                                                                │
│        ┌────────────────────────────────────────────┐         │
│        │ Do you want to remove today's diary entry ? │         │
│        │ Press Y to remove diary entry or Stop to exit│         │
│        └────────────────────────────────────────────┘         │
│                                                                │
└──────────────────────────────────────────────────────────────┘
```
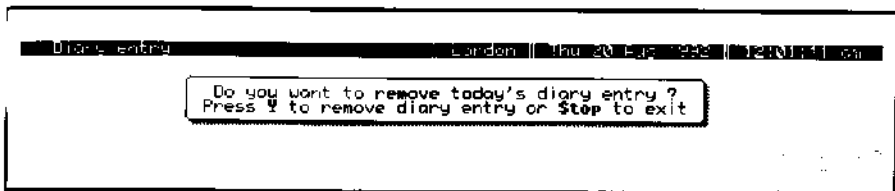
STEP 23:

Removing future diary dates

If you have made diary dates for the future which for some reason have to be cancelled and therefore you wish to delete the diary message, simply locate the month and year, move the cursor on to the actual day which has the star and press the ⎡°°⎤ key. Once again you will be asked to press the Y key if you wish to delete the diary entry.

Press the ⎡stop⎤ key twice to exit to the main screen.

To use the Time Manager/Alarm/Clock Section.

Starting at the main screen press the Yellow and Blue keys.

As you will see from the next screen we have already explored the Address Book section and the Calendar/Diary section. To enter the Time Manager section, press the Blue key.

As you will see from the diagram below, the Time Manager screen is again divided into 3 sections.

```
Time manager menu                    London   Thu 20 Aug 1992   12:03:36 am

┌─────┐  To set an       ┌─────┐ To edit existing   ┌─────┐  To set / edit
│ SET │  alarm call      │ EDIT│  alarm calls       │SET/ │   time zones
└─────┘                  └─────┘                     │EDIT │
         Press                   │ No Alarms Set │          Press
         RED                                                BLUE
```

To set an Alarm
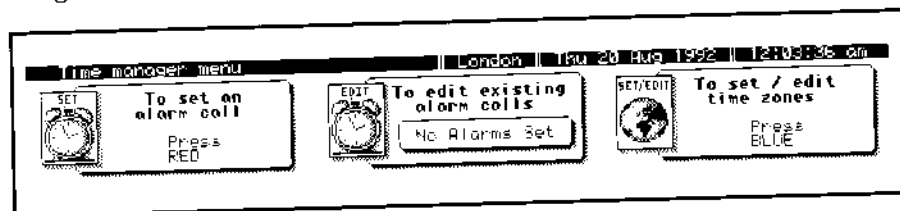
You will see from the screen that the middle section states **No Alarms Set**. This means that there is no Alarm call set in the Notepad memory.

The purpose of the Alarm section is two fold. You can use the Alarm just as you do with any Alarm Clock to wake you up in the morning or to remind you of an event during the day.

To set an Alarm call follow the instructions shown on the left hand section and press the Red key.

As you will see from the screen below, the current time is displayed on the left side.

```
Set alarm call                       London   Thu 20 Aug 1992   15:01:47

┌─────────┐  ┌──────────────┐        Set the time...
│ 15:01   │  │  Once only    │        Press ↑↓ to adjust the hour
└─────────┘  └──────────────┘        Press → when finished
┌──────────────────────────┐
│ message :                 │         Press Stop to exit
└──────────────────────────┘
```
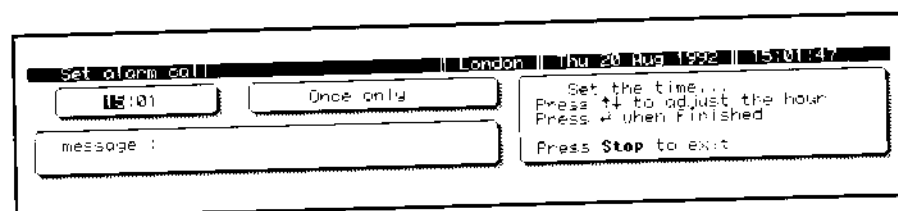
To demonstrate how an Alarm call works, we will set the Alarm for two minutes ahead. You can imagine it is being set for any time ahead.

The cursor is now over the hour digits. As we don't wish to set the hour for this experiment simply press the ⌨ key. The cursor is now over the minutes digits - press the ⬆ key until the minutes are 2 minutes ahead of the current time shown on the top line, right corner of the screen. Now press the ᴤᵗᵒᵖ key and by using the power switch, switch off the Notepad and wait.

After a while you will see and hear the Notepad jump back into life. The screen will come on and the Alarm will sound.

```
                                        Thu 20 Aug 1992    15:04:02

    ┌─────────────────────────────────────────────┐
    │ 15:04                                        │
    └─────────────────────────────────────────────┘
      Press Stop to exit
```
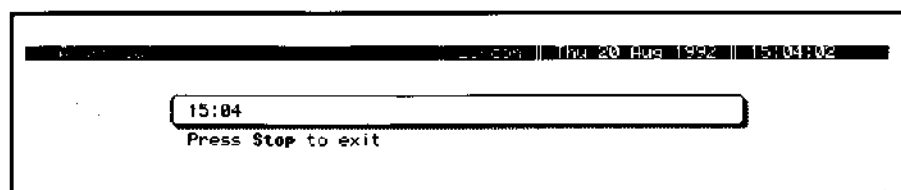
As the screen says, press ᴤᵗᵒᵖ to Exit.

The exercise we just performed was to set an Alarm call only two minutes ahead of the current time.

Now try again and set an Alarm for 07.00 am tomorrow morning. Assuming the time today is after 07.00 am, press the Yellow and Blue keys, then press the Blue key followed by the Red key.

As you will see the cursor is again over the hour digits. By using the ⬆ ⬇ keys, set the hour to 07 and press the ⌨ key.

The cursor is now over the minute digits, by using the ⬆ ⬇ keys adjust the minutes to 00 and press the ⌨ key.

The screen will now be set for 07.00 am which means if you switch the Notepad off now, it will sound the Alarm and switch on at 07.00 am tomorrow. Now press the ᴤᵗᵒᵖ key.

Using the Alarm Function as a reminder

One of the other useful functions of the Alarm section is the facility to put a message into the Notepad at the same time as an Alarm call. For instance, let us say you wish to be reminded today to telephone someone at a specific time.

Follow this example: Press the Red key to bring you the set alarm screen. For the purpose of this example leave the hour as current and press the ⏎ key.

Now set the minutes three minutes ahead of the current time (as shown on the top line right corner of the screen) and press the ⏎ key.

As you will see on the right side of the screen, there are a list of functions. Now press the letter M on the keyboard.

You will now see a shaded area appear in the bottom left hand corner of the screen with the cursor on the far left.

Type in:

Remember to call John at the office.

Now press the ⏎ key and turn off the Notepad with the power key and wait.

After a while the Notepad will switch on and the message will show on the screen as well as the Alarm sounding.

```
┌──────────────────────────────────────────────────────────────┐
│ ▌Alarm call▐          ▌London▐ ▌Thu 20 Aug 1992▐ ▌15:07:04▐    │
│                                                                │
│     ┌──────────────────────────────────────────────────┐      │
│     │ 15:07 Remember to call John at the office.        │      │
│     └──────────────────────────────────────────────────┘      │
│       Press Stop to exit                                       │
│                                                                │
└──────────────────────────────────────────────────────────────┘
```
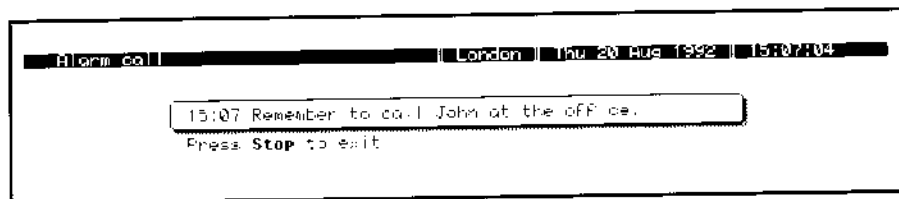
Press ⏎ to exit to the main screen

Finally. if we don't show you now how to delete or cancel an Alarm call you will be woken up at 7.00 am tomorrow!

To cancel an Alarm Call

Press the Yellow and Blue keys, then press the Blue key only. You will see the middle message on the screen **Edit existing Alarm calls**. Press the Green key.

As you see from the screen below

```
▄ Edit alarm call            ‖ London ‖ Thu 20 Aug 1992 ‖ 15:10 04
07:00  Fri 21 Aug 1992



      Press ↵ to edit. Press Del to delete. Press Stop to exit
```
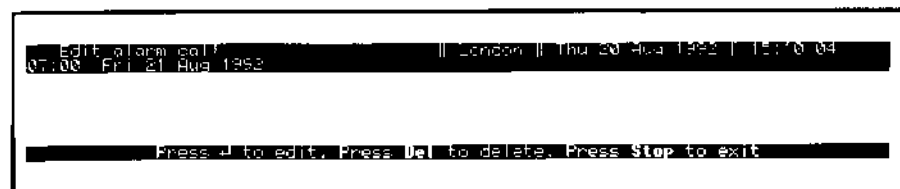
The Alarm call you have set is stored in the Notepad.

By following the instructions on the bottom line of the screen press the [◦◦⊣] key.

```
▄ Edit alarm call            ‖ London ‖ Thu 20 Aug 1992 ‖ 15:10:39
07:00  Fri 21 Aug 1992
           ┌─────────────────────────────┐
           │ Press Y to delete alarm call │
           │ or press STOP to exit        │
           └─────────────────────────────┘
      Press ↵ to edit. Press Del to delete. Press Stop to exit
```
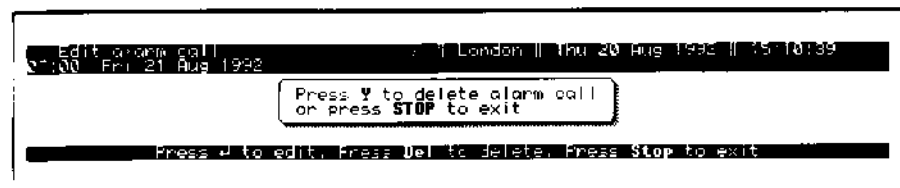
The screen will now invite you to confirm the cancellation. Press the Y key on the keyboard, and you will see the Alarm and message disappear and you can sleep easy tomorrow as you have just cancelled your 7.00 am alarm call.

There are many other functions in the Alarm section which are dealt with in more detail in the second section of this book.

Changing Time Zones when you travel to other countries.

We hope you will take your Notepad with you on all trips.

To change the time to other time zones, press the Yellow and Blue keys then press the Blue key and press the Blue key once again. The screen below will show you the present time zones.

```
 Time manager                          London   Sun 16 Aug 1992    14:46:10
 Time zone       difference   Time
 London                       14 46      Press E to edit zone and offset
 Central Europe    +01:00     15:46      Press ↵ to select as current time zone
 New York          -05:00     09:46      Press ↑↓ arrow keys to move
 Los Angeles       -08:00     06:46              Press Stop to exit
 Tokyo             +09:00     23:46
 Sydney            +10 00     00:46
```

Let us say you are travelling from England to an European destination.

For most of the year Europe is one hour ahead of the UK. You will see from the screen that dark band is over the word London. Press the Blue ⬛⬇ key and you will see it move down over **Central Europe**, watch the top right corner of the screen and press the ⮐ key. You will see the time jump ahead by one hour and the location name change from **London** to **Central Europe**.

Now let's get more adventurous and imagine we are in Japan which is normally eight hours ahead of the UK.

Use the Blue ⬇ key again to bring the dark band over **Tokyo**, look at the top right corner of the screen and press the ⮐ key and once again the time and location have changed.

To go back to London time, press the ⬆ key to bring the dark band over the word London and press the ⮐ key. As you see, the top line of the screen shows London again as your location and the time back to normal.

In the second section of the book we will explain how to put in other locations and their time differences.

Press the ⬚⬚ key three times to return to the main screen.

Do you want to know a secret?

Using the secret function

As you will notice, there is a key marked 'Secret' on the keyboard (*Next to the Red key*). The purpose of the secret function of the Notepad is to allow you to store information in the Notepad's memory which is your confidential and private data.

To operate the secret function, simply hold down the Yellow key and then press the 〔⋯〕 key at the same time.

As you will see from the screen display below, you are invited to type in a password or a PIN number (*Personal Identification Number*).
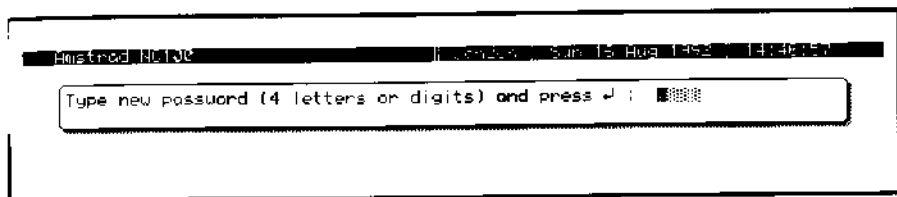
Now type in a number (*4 DIGITS*) which you will remember and press the 〔⏎〕 key.

As you will see, you are invited to double check the number, so type it in again and press the 〔⏎〕 key.

Once you have double checked your Password/PIN and pressed the 〔⏎〕 key, you will see the screen now invites you to type in your data. Type in the following:

This is my secret memory store

Now press the 〔Stop〕 key.

Just as an experiment, press the Yellow key and Secret key again, type in a wrong Password/PIN deliberately and press the 〔⏎〕 key. You will see that you are unable to get into your secret information. Press 〔Stop〕 to exit.

Now press the Yellow and Secret keys again and type in your correct Password/PIN followed by the '⏎' and you will see the message appear again.

If you forget your password/PIN refer to page 60.

Conclusion

This is the end of Section 1 of the book. We hope that it is simple enough for you to have understood the basic functions of your Notepad Section 2 covers the operation of the Notepad in far more detail.

Once again, may we remind you to fill out your Warranty Card and return it to us immediately so that we can keep you fully informed about al' matters relating to your Notepad.

SECTION 2

User Guide

Contents

Powering the Notepad

Most of the time you will probably use the batteries to power your Notepad, these will enable you to work for approximately 35 to 40 hours, when they need to be replaced a warning message is flashed on screen telling you to replace the batteries.

---

xxxxx **battery is low, Please switch off and replace battery** - - -

---

Use alkaline type AA/LR6 1.5V or if preferred you can fit rechargeable (NiCad) batteries; these will provide about 2 hours of working time before needing to be re-charged.

You can conserve the life of the batteries by connecting to the mains supply when you are working at home or in your own office.

When there is no other source of power (when replacing the AA batteries for example) the lithium battery will maintain your work in the Notepad memory (the estimated life of the lithium battery is 5 years). If the lithium battery needs replacing you will see the message "Lithium battery is low----" . Ensure that good alkaline batteries are fitted or the mains adaptor connected while you replace the lithium battery. You must use a CR2032 type battery which can be purchased at many electrical or photographic shops.

Warning: If all power sources are disconnected all the stored information; documents, addresses, diary entries etc will be permanently lost from the Notepad memory.

Switching off

You can switch off your Notepad at any time while you are using it and the work you are doing will be stored.

When you switch on again you will be returned to the Main Screen. You may see the following message on screen for a few moments:

storing ....

This will sometimes occur when you switch off while there is a word processor document on the screen.

Automatic Power off

If you leave your Notepad switched on but don't touch any of the keys for five minutes it will automatically switch itself off to conserve power.

The five minute period can be changed using the Systems Setting menu (press ⬚ key at the Main screen) but be careful, if you set the power off delay to zero, automatic power off will not occur and your batteries will be drained.

Switching on

When you switch on the Notepad you will be returned to the main screen unless the Notepad automatically powered off the last time you used it. then you will be returned to whatever you were doing at the time, this is called 'Preserving the context'.

If you would prefer that your Notepad always preserved the context when you switch on change the 'Preserve context during power off' setting in the System Settings menu.

WARNING

Your PC contains a Lithium battery. Danger of explosion if recharging is attempted. Replace the lithium battery with the same type recommended by Amstrad PLC. Do not dispose of the old lithium battery in the fire.

Getting Around

From the main screen you can access all parts of the Notepad program by holding down the YELLOW key then press the RED, GREEN or BLUE key (the messages on screen tell you which key to press).

The [Word ⇐] [Calc ⇒] [↑] [↓ Diary] **Keys**
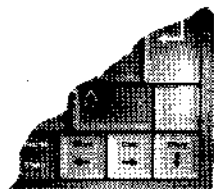
When using your Notepad you will find that sometimes the coloured keys are referred to on the screen by their colour and at other times by the arrow symbols printed on them.

The [Stop] **key**

Press [Stop] at any time to finish what you are doing, and return to the previous screen. You may have to press [Stop] several times to return you to the main menu.

Advice for beginners

When you first use your Notepad you may find you "get lost" especially when using the more complicated word processor features and pressing [Stop] will enable you to escape. As you become familiar with your Notepad you will use the [Stop] key less as you learn the short cuts.

Short Cuts

You can short-cut the menus on your Notepad and go directly to the part you want using special key combinations to avoid having to return to the main menu. For all the short cuts hold down the YELLOW [Function] key and press another key.
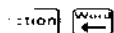
[Function] [Word ⇐]   - To the word processor or returns you to the document you are typing.

Function	[N]	- Start a New Document
Function	[L₃]	- To the List of Stored Documents
Function	[Pₓ]	- To Print a Document
Function	[Calc]	- To use the Calculator
Function	[Diary]	- To the Diary Menu
Function	[D]	- To the Address Book*
Function	[C]	- To the Calendar/Diary
Function	[T]	- To the Time Manager
Function	[A]	- To the Set Alarm Call Menu
Function	[Z]	- To Time Zones Manager
Function	[X]	- Run Memory Card Program (JEIDA/PCMCIA)
Function	[S]	- Serial Terminal Program
Function	[B]	- Go to BASIC programming
Function	[Secret Menu]	- Enter password for Secret Information

You can use the key combinations above to quickly move from one part of the program to another without returning to the main menu, for example while typing a document in the word processor, hold YELLOW and press GREEN to use the calculator, to return to the document hold YELLOW and press RED.

*Use this to insert an address from your address book into the document you are typing.

Single Key Operation

To assist the disabled the Notepad has been designed so that it can be operated using only one key at a time using the "Sticky shift" feature. Sticky shift has to be switched on at the System Settings Menu.

The way sticky shift works Is that instead of having to hold down the Function [Control] [↑] or [Symbol] key while pressing another, the keys can be pressed one after the other.

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At the main menu sticky shift will always work, for it to work at other times you must switch it on at the System Settings Menu:

1   Press 🔲 at the main screen

2   Press the 🔲 until you reach "Sticky shift".

3   Press the 🔲 or 🔲 key until "Yes" shows on the screen.

4   Press 🔲.

Memory

There are about 49,000 bytes of memory available on the Notepad for your "data", that includes all the information you type in; documents, addresses, diary entries and alarms.

When you start to run out of memory your Notepad will give you a warning, to make space in the memory you will have to delete some of your documents, refer to the Word Processing section below for instructions on how to do this.

Expanding the Memory

You can increase the memory by the use of industry standard SRAM cards (JEIDA/PCMCIA cards) that can be inserted into the MEMORY CARD slot on the Notepad.
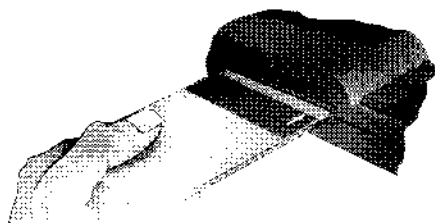
Memory Cards with up to 1 MB capacity can be used with your Notepad. Instructions for looking after the cards, fitting the battery, write protection etc are supplied with the card.

The card must be "formatted" before you can use it. Insert the card into the slot then select the LIST STORED DOCUMENTS screen (hold down 🔲 and press 🔲 then press 🔲. Select "Format Memory Card" and press 🔲.

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
With the memory card loaded documents and addresses are automatically stored on the card. Documents and addresses that are already stored in the Notepad memory can be transferred to the card (see the instructions in the Address Book chapter and the Word Processing Guide).

Note that you should always switch the Notepad OFF before inserting or removing a memory card.

Word Processor

Introduction

The Word Processor is designed to be simple to use but has many advanced and powerful features. With very little instruction a beginner can type a document without needing to understand any of the advanced features while the experienced user will find that many of the features available on their usual word processor are also available on the Notepad.

If you are a beginner at using a computer or word processor read the first section of this book that gives simple step by step instructions to get you started. Remember that you cannot harm your Notepad by pressing the wrong keys, so don't be afraid of trying things out (if, while doing this, things happen that you don't understand press the [Stop] key until you return to the main screen or a screen you do understand).

For detailed information and instructions on word processing read the front section on this book and the Word Processing Guide later in this book.

Features of the word processor

Features that are available include; Spell checking, mail merging, word count, cut and paste, find and replace, keyboard macros, accented characters, case changing and un-delete.

The Notepad date and time, and addresses from the Notepad address book can be directly inserted into a document.

Press the [Search Menu] key during word processing or use the key combinations listed on the Notepad "Template" (just beneath the LCD) to access all these features.

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Transferring Documents

Documents can be transferred to other computers via the serial port using the in-built terminal program supplied with your Notepad.

The documents can be transferred in the "Protext" format for further editing within Protext on your PC or Amstrad PCW, or can be converted to ASCII format before transferring so they can be loaded into other programs.

The Notepad word processor is a special version of Protext by Arnor, if you would like to buy a copy of Protext for your desktop computer (IBM compatible PC, Amstrad PCW or other) it is available from computer dealers or direct from Arnor Ltd, 611 Lincoln Road, Peterborough PE1 3HA (telephone 0733 68909).

The Template
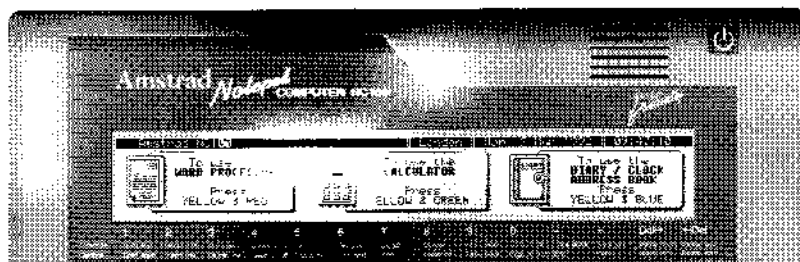
Printed just below the screen of your Notepad is the quick reference template. Use it while word processing to remind you of some of the key combinations required. For the activities printed in yellow hold down the YELLOW [Function] key then press the key indicated (one of the keys along the top of the keyboard), for those in white hold down [Control] and press the key indicated.

Some of the operations take place as soon as you press the keys, and have an obvious effect, others you will need to learn how to use. For example, if you hold down [Function] and press [=] all the words are counted and a message appears on the screen stating the total number of words in your document, but if you hold [Function] and press [5] a "menu" appears on screen with various options.

Calculator

For step by step instructions on using the Calculator read Section 1.

Hold down YELLOW [Function] and press GREEN [Calc]. For quick access to the calculator from another part of the program use the same key combination.

The calculator works in a similar way to a most simple pocket calculators.

Calculation	Example	Operation	Answer
Arithmetic	15x2+7= (-32)+8 -2=	15 (x) 2 (+) 7 (=) 32 (±) (÷) 8 (-) 2 (=)	37 -6
Constant	30+25= 25+90=	25 (+) (+) 30 (=) (25 constant) 90 (=)	55 115
	22-33= 95-33=	33 (-) (-) 22 (=) (33 constant) 95 (=)	-11 62
	15x4= 45x4=	4 (x) (x) 15 (=) (4 constant) 45 (=)	60 180
	45÷3= 354÷3=	3 (÷) (÷) 45 (=) (3 constant) 354 (=)	15 118
Percent	15% of 150	150 (x) 15 (%)	22.5
	13 as a % of 40	13 (÷) 40 (%)	32.5
Add-on	Increase 150 by 15%	150 (+) 15 (%) or, 150 (x) 15 (%) (+) (=)	172.5
Discount	Decrease 350 by 15%	350 (-) 15 (%) or 350 (x) 15 (%) (-) (=)	297.5
Square root	Square root of 45-29	45 (-) 29 (=) (√)	4

Calculation	Example	Operation	Answer
Using the Memory*	32 x 3= -) 62÷2 +) 53 + 22= Total (16-(8 x 3)) x (27-13)=	(MRC) (MRC) (CE/C) 32 (x) 3 (=) (M+) 62 (÷) 2 (=) (M-) 53 (+) 22 (=) (M+) (MRC) (MRC) (MRC) (CE/C) 16 (M+) 8 (x) 3 (M-) 27 (-) 13 (x) (MRC) (=)	963175140112

*Clear the calculator memory before performing a new calculation by pressing MRC twice then CE/C.

You will see a flashing **ε** in the top left of the display if an error occurs during a calculation or if calculation results in a number too large to be displayed.

Unlike a normal calculator you can use ⌫ to delete wrongly entered numbers.

Press ⏹ to return to the main screen, or use one of the "Short-cut" methods to return to the screen you were using before the calculator.

Address Book

For step by step instructions read Section 1.

Hold down YELLOW [Function] and press BLUE [↓]. To access the Address book from another part of the Program hold down YELLOW [Function] and press [?].

If you have not used the address book before, and there are no addresses stored, you are taken directly to the screen where you can type in the first address:

```
┌──────────────────────────────────────────────────────────────┐
│  Address book            London  Mon  9 Mar 1992  13:24:38     │
│ Name       █                          ┌─────────────────────┐  │
│ Address                               │ Add/Edit address    │  │
│                                       │ Press ↑↓ to move    │  │
│ Telephone                             │ Press Stop to exit  │  │
│ Fax                                   └─────────────────────┘  │
└──────────────────────────────────────────────────────────────┘
```

When you press [↵] at the bottom of the card the next blank card appears on the screen ready for you to enter the next address.

When you have finished entering addresses, press [Stop]. The Address Book Menu is now displayed:

```
┌──────────────────────────────────────────────────────────────┐
│  Address book            London  Wed 18 Mar 1992  5:08:48 pm   │
│ Name       Amstrad plc                 │ A dd New Address      │
│ Address    169 Kings Road              │ E dit Address         │
│            Brentwood                   │ F ind Address         │
│            Essex CM14 4EF              │ D elete Address        │
│                                        │ [←] Browse [→]        │
│ Telephone  0891 303131                 │ Press Stop to exit    │
│ Fax        0277 211350                 │                       │
└──────────────────────────────────────────────────────────────┘
```

To 'Browse' through the addresses use the [←] [→] keys. All the other options can be carried out either by pressing the initial letter of the option or selecting the option using [↑] [↓] then pressing [↵].

(A)dd New Address: Select this when you want to add a new address to the address book.

(E)dit Address: Use to amend the address card showing on the screen - to amend one of the other cards, first use 'browse' to find the card then press [E].

(D)elete Address: Delete the card on the screen - select the card you want to delete using 'browse' then press [?]. Confirm that you do want to delete the card by pressing [?] for Yes, or if you have changed your mind press [N] for No

(F)ind Address: Find a particular address card - if you have lots of addresses this will be quicker than using 'Browse' to find the address you want. When you press [?] you will be asked to enter the Name to Find, type in the name or any part of the address or telephone number and press [↵]. If there is more than one occurrence of the text you have typed press [?] then [↵] until the address you want is displayed.

Press [?] at the menu to go back to the Diary screen (press [?] again to go back to the main screen).

Storing the address book on a Memory Card

When a memory card is loaded the addresses you type will automatically be stored onto the card. If you already have addresses stored in the Notepad memory they will be transferred to the card when you access the address book.

The addresses are only stored on the card, so if you remove it from the Notepad your address book will be 'blank'. If you insert new addresses into this blank address book they can be 'merged' into the address book on your card later. To merge the addresses, switch off your Notepad, insert the memory card and switch on again. Access the address book in the normal way (you will only be able to find the addresses stored in the Notepad memory) then press [?] you will see a message similar to the following:

```
█ Address book ████████████║ London ║ Thu 20 Aug 1992 ║ 16:15:31 █
┌─────────────────────────────────────────────────┐
│ Different address book found on card              │
│ Press Del to delete it                            │
│ Press M to merge it                               │
│ Press Stop to exit                                │
└─────────────────────────────────────────────────┘
```

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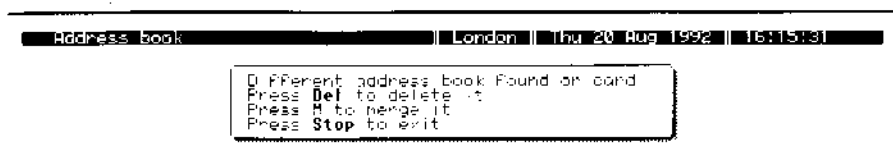
Press ⟨M⟩ to merge the addresses, if you press ⟨⟩ the addresses will not be merged.

Calendar and Diary

For step by step instructions read Section 1.

Hold down YELLOW ⟨⟩ and press BLUE ⟨↓⟩ then press GREEN ⟨→⟩.
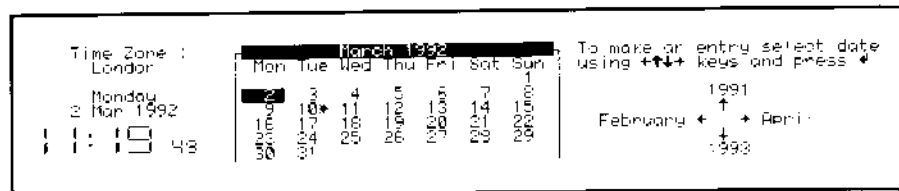
Use the ⟨←⟩ ⟨→⟩ ⟨↓⟩ ⟨↑⟩ keys to move around the calendar as indicated on the right hand side of the screen. The months and years change only when you are against the edge of the calendar.

Pressing ⟨←⟩ ⟨→⟩ ⟨↓⟩ ⟨↑⟩ with [ ] will move a month or year at a time when the cursor is in the middle of the calendar.

The time and date are shown on this screen for your reference only, if you need to adjust the time or date go to System Settings (you should only need to do this if you set it incorrectly in the first place or when, if you are in the UK, the clocks change to British Summer Time).

To make a diary entry, position the cursor on the relevant date on the calendar and press ⟨↵⟩. Type the details of your appointment and relevant information into the diary editing screen:
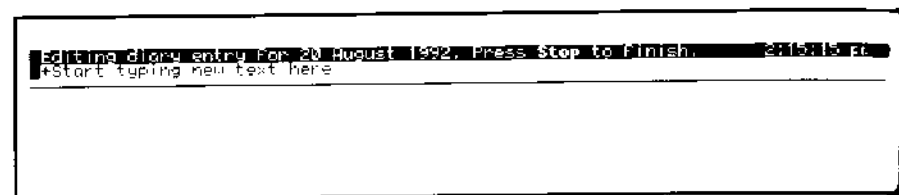
Using the diary is similar to typing a document in the word processor (although they cannot be printed). When you have finished crea

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[⌨️] , the diary entry is indicated on the calendar with an asterisk (*).

Diary Reminder

When you switch on the Notepad and there is a diary entry for the day, a message will show on the screen and a beep will sound to remind you to read your diary. This will continue every time you return to the main screen until you have read your diary by pressing ↵ whilst at the main screen.
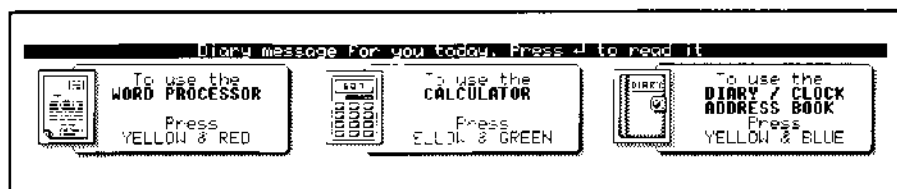
When you have read the diary entry press [⌨️], you have the option of deleting the entry if you wish.
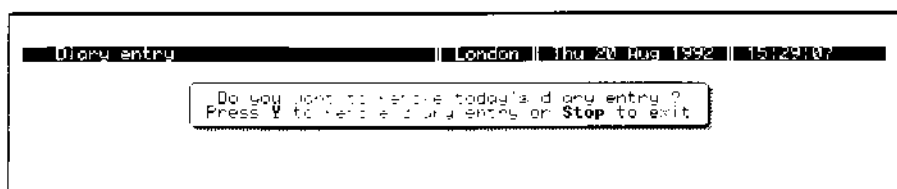
Time Manager

Notepad Alarms and the International Time Zones are accessed from the Time Manager screen.

Time Zones

For step by step instructions on using Time Zones read Section 1.

From the main screen hold down YELLOW [Function] and press BLUE ↓ , then press BLUE again to go to the Time Manager.
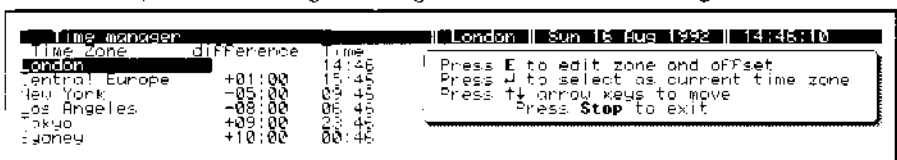
Your Notepad has been set up to show the time in London, Central Europe, New York, Los Angeles, Sydney and Tokyo, you can change these to any six cities you require.

Select the City to change using the cursor keys then press ⟨E⟩, type in your new city name and press ⟨↵⟩ then use the ⟨↑⟩ ⟨Diary↓⟩ cursor keys to change the time difference then press ⟨↵⟩.

Current Time Zone

When you travel to a country that is in a different time zone select that zone as the "Current time zone". The other zones will adjust to give the time difference relative to where you are staying. Selecting the new current time zone will automatically adjust the time and place shown on the top of the Notepad screen, but will not change the times set for your alarm calls.

Alarm Calls

For step by step instructions on Alarm Calls read Section 1.

Hold down YELLOW ⟨Function⟩ and press BLUE ⟨Diary↑⟩ then press ⟨↑⟩ at the Time Manager screen. Press RED ⟨Word←⟩ to go to the "Set alarm call" screen:

```
┌──────────────────────────────────────────────────────────────────┐
│ ▆▆▆ Set alarm call ▆▆▆                  ▆▆▆▆▆ 20 Feb 1992 ▆▆▆▆▆     │
│ ┌──────────────┐  ┌─────────────────┐  ┌──────────────────────────┐│
│ │   ▆▆:01      │  │   Once only     │  │ Set the time...          ││
│ └──────────────┘  └─────────────────┘  │ Press ↑↓ to adjust the hour││
│ ┌──────────────────────────────────┐   │ Press ↵ when finished    ││
│ │ message :                        │   │ Press Stop to exit       ││
│ └──────────────────────────────────┘   └──────────────────────────┘│
└──────────────────────────────────────────────────────────────────┘
```

Follow the instruction on the left of the screen; you have to set the time first, then set the date and type in your message - note that messages are limited to 42 characters.

When you press ⟨P⟩ to edit the date it changes from "Once Only" to "Repeats every day". Press ⟨↑⟩ ⟨Diary↓⟩ to set a specific date, to return to "Repeats every day" use ⟨↑⟩ or ⟨Diary↓⟩ until you reach the beginning or end of the month then press the key once more.

Advanced Feature: To set an alarm for the same time on several days of the week press ⟨Diary↓⟩ to adjust the date then hold down ⟨◇⟩ and press ⟨Secret Menu⟩ and you will see the following:

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```
┌──────────────┐  ┌──────────────────┐  ┌──────────────────────────────┐
│    15:31     │  │ days : ▉TWTFSS   │  │   Set the date...            │
└──────────────┘  └──────────────────┘  │ Press ↑↓ to adjust the day   │
┌──────────────────────────────────────┐│ Press ←→ to move left/right  │
│ message :                            ││ Press ↵ when finished        │
└──────────────────────────────────────┘│ Press Stop to exit           │
                                         └──────────────────────────────┘
```

Each day of the week is represented by one letter, use the ⟨↵⟩ or ⟨◄⟩ to move the cursor from one day to the next then use the ⟨T⟩ or ⟨T⟩ key to cancel the days you do not want the alarm. So for example an alarm that you want on Monday, Wednesday and Friday might look like this:

```
┌──────────────┐  ┌──────────────────┐  ┌──────────────────────────────┐
│    07:27     │  │ days : M-W-F--   │  │   Alarm now set              │
└──────────────┘  └──────────────────┘  │ Press T to adjust the time   │
┌──────────────────────────────────────┐│ Press D to adjust the date   │
│ message :                            ││ Press M to add message to alarm│
└──────────────────────────────────────┘│ Press Stop to exit           │
                                         └──────────────────────────────┘
```

Press ⟨Stop⟩ when you have finished

To set an alarm call for 24 hours hence just press ⟨↵⟩ ⟨↵⟩ at the Set Alarm screen.

To change the time date or message of an alarm call

At the main screen hold down YELLOW ⟨Function⟩ and press BLUE ⟨Diary⟩, press BLUE again at the 'Diary menu' then press GREEN. The short cut method is to hold down YELLOW ⟨Function⟩ and press ⟨ ⟩ then press GREEN.

To get quickly to the "Set alarm call" screen from any other part of the program hold down YELLOW ⟨Function⟩ and press ⟨A⟩.

Note that if you are editing a document when an alarm "goes off" the message will not appear - you must press ⟨Stop⟩ to read the message.

Secret Information

For step by step instructions read Section 1.

For information that you might like to keep on your Notepad but do not wish others to access (for example: passport number, bank accounts and credit card details or private telephone numbers) we have provided a "Secret Information" screen which can only be accessed by typing a password that you have set up.

Set up your Password

Hold down [Function] and press [Secret Menu] you will see the following screen:

```
Amstrad NC100                    London   Sun 16 Aug 1992

 Type new password (4 letters or digits) and press ↵ :
```
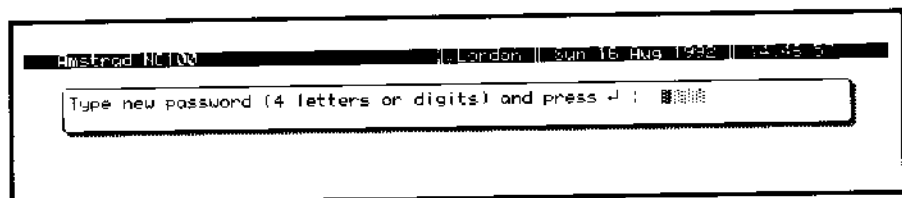
Type in any combination of four letters and/or numbers and press [↵]. You can use capital or lower case letters. The password is totally secure, so if you ever forget it you will not be able to access your information, you can only delete it so - **DON'T FORGET YOUR PASSWORD.**

You will be asked to confirm your password. Type exactly the same sequence again then press [↵].

```
Editing secret information. Press Stop to finish.         15:12:50
+Start typing new text here
```
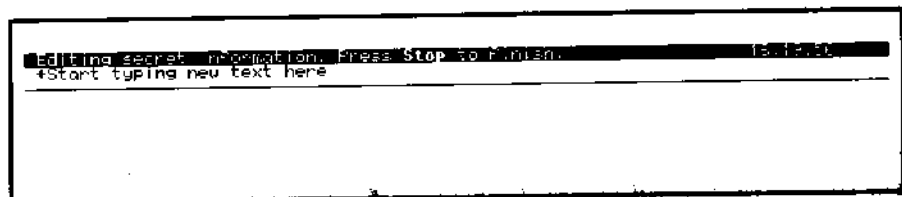
You can now type in your "secret information", you can edit the text in the same way as you edit a word processor document (although you cannot print). Press [Stop] when you have finished. Next time you want to refer to your secret information hold [Function] and press [Secret Menu] then type in your password.

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Complete Password Protection of your Notepad

You can set a Password Lock to protect all the information in your Notepad using your Secret Information Password.

If you have not already done so set-up your password as described in "Set up Your Password" above.

Anytime you want to set the Password Lock hold down [Control] and press [Secret Menu] then switch off.

```
Please enter password and press ↵ : ▊▒▒
```

Before the Notepad can be used again the password must be correctly typed and the [↵] key pressed.

Changing your Password

To change the password enter the Secret Information by holding [Function] and pressing [Secret Menu] and typing your current password. Then press the [Secret Menu] key:

```
Please enter old password and press ↵ : ▊▒▒
```

Type in your current password:

```
Type new password (4 letters or digits) and press ↵ : ▊▒▒
```

Type in your new password.

> **Important:** If you cannot remember your old password it is impossible to change the password or to access the Secret Information.

If you forget your password

The password protection on your Notepad is totally secure, so if you forget your password you have no option but to erase your Secret Information or, if you have set the Password Lock, to erase all your work held in the Notepad memory including documents, diary entries, addresses etc as well as your Password by resetting the Notepad.

Erasing your Secret Information and Password

To erase the Secret Information:

1   Hold down [Function] and press [Secret Menu]:

```
Please enter password and press ↵ : ▓░░░
```

2   Hold down the [Function] key and press [←Del].

Press [Y...] to confirm that you do want to delete the information. **All your Secret Information as well as your Password will be erased.**

Resetting Your Notepad

This will erase all your work stored in the Notepad memory as well as your password. If you are using a memory card the addresses and documents stored on it will not be erased.

Switch off your Notepad then hold down [Function] and [Stop] together with the [←·] key on the right and switch on the computer.

To prevent accidental reset you cannot use "sticky shift" (single key operation).

If the reset is effective you will hear an extended "beep". If you have not held the keys down properly it will not reset. Try again.

System Settings

The system settings menu is accessed only from the main screen by pressing ⌨.

The factory settings are as follows:

```
 Amstrad NC100 NOTPAD SYSTEM SETTINGS  Use ↑ ↓ ← and →, Stop to finish
Power off delay (mins, 0=Never)       (5)
Preserve context during power off     (No)
Document date display                 (Not shown)
Document transfer port and format     (Serial/Protext)
Sticky shift keys?                    (No)
Time display format                   (24 hour)
Set time and date
```

Document size and date display

These will show against the name of each document in the LIST STORED DOCUMENT screen. The size of each document is shown in bytes with the date and time you last edited the document.

Where the document is stored in memory is indicated by an initial. C means stored on a memory card, U means stored in the Upper memory, L means stored in Lower memory, this is only of any interest to you if you start to run out of memory and need to delete documents, delete those in the Lower memory to make room when you are editing a large document.

To display the size and date use ⌨ or ⌨ to change the setting from "Not shown", you then have a choice of date format press ⏎ on the format you prefer.

Automatic Power Off delay

If you find the automatic power off time of 5 minutes is too long, reduce the time to between 1 and 4 minutes. Do not set the delay to 0 (never) particularly if you running the Notepad from the batteries as this will prevent automatic power off occurring.

Preserve Context

If when you switch on, you want your Notepad to return to the screen you were using when you switched off change this setting to Yes. Context is always preserved when automatic power off occurs.

Sticky Shift keys

To allow one-key operation of the Notepad switch "sticky shift" on, where normally you would have to press two keys at the same time, this allows you to press one after the other. So, for example, to spell check a document when word processing could first press the YELLOW [Function] key then press [1].

Document Transfer port/Format

Use this to set Serial or Lapcat (Parallel) and Protext/ASCII, refer to the section on transferring documents for more information.

Time display format

To change the time display to the 12 hour clock use the [↑] [↓] cursor keys.

Set time and date

To change the time and/or the date press [Menu] at the main screen the press [↵] or [↓] until you see the following screen:

```
Set time and date                    London   Thu 20 Aug 1992   15:04:45
┌──────────────┐  ┌──────────────────┐  ┌─────────────────────────────┐
│   15:04      │  │  Thu 20 Aug 1992 │  │     Set the time...          │
└──────────────┘  └──────────────────┘  │ Press ↑↓ to adjust the hour  │
                                         │ Press ↵ when finished        │
                                         │ Press Stop to exit           │
                                         └─────────────────────────────┘
```

Set the time and date as described in the first section of this book. Note that the seconds are set to zero as you press [↵] after setting the minutes. Use the 24 hour clock even if you have changed the Time display format.

(Don't use this method to change the time and date if you have travelled abroad to another time zone, select the correct Time Zone in the Time Manager instead.)

Word Processing Guide

For step by step instructions for beginners read Section 1.

Detailed instructions on how to use your word processor are given
in this section.

Starting a New Document

You have to type a name for every document before you start, the
name can consist of up to any 12 characters, the document is
stored under this name and you can not have two documents with
the same name.

At the main screen hold down YELLOW and press RED to reach the
Word Processing screen then press RED.

Type in a name for your document;

Choose a name that will remind you of the contents of the
document so that you can easily identify it later.

Any 12 characters can be used, if you make a typing error use ⌫
or [Stop] then retype. Press ⏎ when you have finished.

```
Document First          Mode    Press Stop to Finish or print  15:12:44
+Start typing new text here
```

End of text line
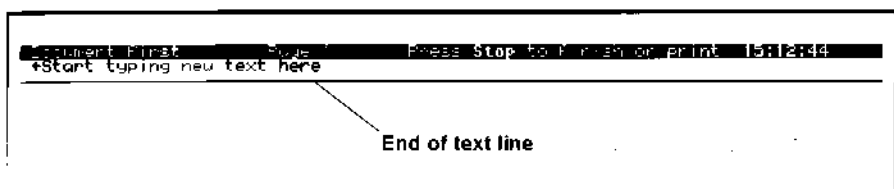
This text will disappear as soon as you start to type

You can now start typing just as you would on a fresh sheet of paper
on a typewriter.

Saving a Document

Documents are saved ("stored") automatically. If you have a
memory card loaded the document will automatically be stored
on the card.

A document already stored in the Notepad memory can be moved to the memory card as follows:

1 Switch the Notepad off

2 Insert the Memory Card, carefully but firmly into the Memory Card Slot on the left side of the Notepad
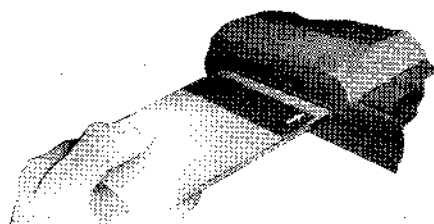
3 Switch the Notepad on

4 "Edit" the document you want to store on the card (that is, bring the document to the screen):

Hold YELLOW and press RED at the main screen

Press GREEN at the Word processor menu

Use the ⌫ ⌦ ⬆ ⬇ keys to highlight the name of the document

Press ⏎.

With the document on the screen press 🅂🅃🄾🄿.

The document is now stored on your Memory Card and has been removed from the Notepad memory.

To copy documents from a card into the Notepad memory set the "write protect" switch on the card to on, edit the document then press 🅂🅃🄾🄿. You will now see two copies listed in the LIST STORED DOCUMENTS screen, one on the card and one in memory to see which is which use "Document Size and Date" in the System Settings menu.

Large Documents

The size of any document is limited by the amount of "free memory", this cannot be increased by using a memory card.

When you start to run out of memory you will see a warning message on screen, delete old documents and diary entries to increase the "free memory" space.

To show how many bytes of memory you have available, and how many bytes each document uses you must show "Document sizes and date display" using the System Settings menu (see "System Settings").

Deleting a Document

Delete documents if your Notepad memory becomes too full, or if you want to remove a confidential document from memory. Delete a document as follows:

Hold down YELLOW and press ⌈ ₃⌋

```
 To select use ↑ ↓ ← → and press ↵  ‖ Menu for options ‖ Stop to exit
First
 MISPELL
Second
 SPELL
```

Select the name of the document you want to delete using the ⟮Word ←⟯ ⟮Card →⟯ ⟮Diary ↑⟯ ⟮↑⟯ keys

Press ⟮Secret Menu⟯

Press ⟮D⟯

```
Are you sure you want to delete document 'xxxx'
Press Y for Yes, N for No:
```
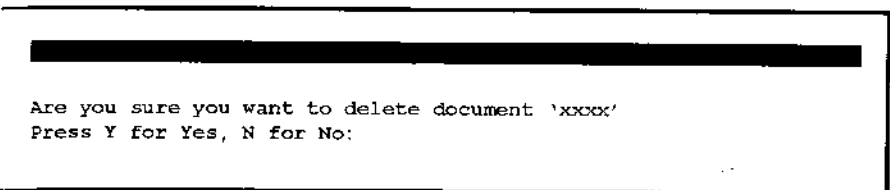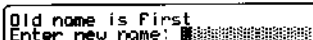
Press ⟮Y...⟯ to delete the document.

Repeat the process for each document you want to delete. Once deleted a document cannot be recovered, so make sure you do not delete the wrong document!

Renaming a document

You can give one of the document a different name at the LIST STORED DOCUMENTS screen. Select the name of the document you want to change then press ⟨Menu⟩. Select Rename by typing ⟨R⟩, you will see the following message:

```
Old name is First
Enter new name: ███████████████
```

Type in the new name and press ⟨↵⟩.

Copying a document

With the document on the screen press ⟨Menu⟩, then press ⟨C⟩ to copy the document, you will see the following message:

```
Amstrad NC100 word processor menu                    15:14:22
Copy: enter name for document: ████████████
```

Type in a new name for the copy then press ⟨↵⟩. You will be returned to your original document and the copy is stored. The copy can be edited in the same way as any other document.

(There are several reasons you might have for wanting to copy a document, one example might be that you have typed a letter, then want to send a similar letter to someone else but you do not want to re-type it and you want to keep the original stored in your Notepad.)

Typing a Document

If you have not used a word processor before you need to get used to the feel of the keys, as well as learn what all the keys do. When typing a light touch is required, if you hold a key down for too long it will be repeated on the screen until you release it. If you find it more comfortable, angle the Notepad using the flip-down legs on the base.
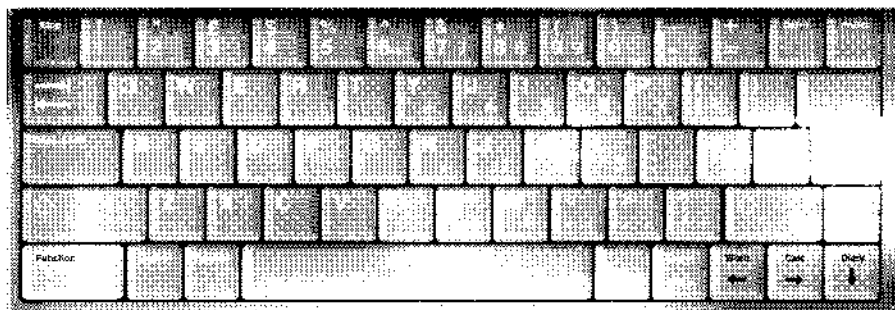
cursor

The cursor is the "flashing oblong" that marks your position on the screen, as you type the cursor will move ahead. When revising a document you can move the cursor using the ⟵ ⟶ ↓ ↑ keys.

⌐⟍　⌐

Hold down one of the SHIFT keys then press a character key to type the upper case letter or symbol, the upper case symbols are printed on the top half of the key.

Caps Lock

Press to switch to typing all capital letters, you still have to use SHIFT to type the upper case symbols. Press Caps Lock again to switch capitals off. When the caps lock is On a "C" shows in the top right hand corner of the screen.

⏎

Press twice when you want to start a new paragraph. Use to start a new line when typing (for example) a list.

⌨ ⌨
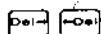
Use to delete text, if you want to delete more than a few characters you should use one of the other delete methods described below.

⌨

Use to align text into columns and to indent the first line of a paragraph. (To indent a whole paragraph requires a different procedure - see section on changing margins.)

How Not to Type:

If you have used a typewriter before but not used a word processor it is important that you remember:

Not to press ⏎ at the end of each line, only when you start a new paragraph. The text automatically wraps to the next line as you type.

Not to use the spacebar to move the cursor or to indent or align text. Only use the spacebar to insert a space between words. Instructions for indenting and aligning are given later in this manual.

Page size

As you type the line will move down the screen, when you have typed a page of text a "page break" bar appears on the screen showing where the page will finish when printed, the word processor is set to print on A4 size paper but this can be changed using the "Layout" menu (if you want to do this refer to the chapter on Page Layout).

Correcting typing errors

If you make mistakes while typing you can use the [Del] [Del] keys to delete single characters, or hold down one of the keys to delete several characters. There are other ways of deleting a line of text or a large section (called a "block") of text, these are described below.

Moving around a Document

Moving around a document really means moving the cursor around. Using the [←] [→] [↑] [↑] keys on their own will always work, but you may find this a bit slow especially in larger documents. The following methods will move the cursor around quickly.

Page at a time forwards or backwards	Hold down [Control] and press [9 9] to go back or [0 .] to go forwards (you don't have to remember this just refer to the Template on the Notepad).
word at a time	Hold [○] and press [Word ←] or [Calc →] to move to the beginning of the previous or next word.
to the start of a line	Hold [Control] and press [Word ←].
to the end of a line	Hold [Control] and press [Calc →].
a screen at a time	Hold down [Control] press [↑] to go up or [↓] to go down the document 7 lines, there is an overlap of one line that enables you to scan through a document using the minimum of keystrokes.

to the start of the document -   Hold down ⌨ and press ⌨.

to the end of the document -   Hold down ⌨ and press ⌨.

Inserting Text

To insert new text into existing text just position the cursor and type the existing text will move along to make room. You must have the "Insert" mode ON when you do this, otherwise the old text will be deleted as you type. Hold down the ⌨ key and press ⌨ to switch "Insert" on or off (you don't have to remember this just refer to the Template on your Notepad).

Typing over existing text

To type over existing text first hold ⌨ and press ⌨ to switch Insert off then position the cursor over the text you want to replace and type. The old text erases as you type. Remember to switch Insert back on when you have finished.

Deleting Text in a Document

The delete keys ⌨ and ⌨ will always delete text, if you press the key one character will be deleted, if you hold down the key deleting will continue until you release it. However there are other ways to delete large sections of text as described below:

Delete a word -   Hold down ⌨ and press ⌨ or ⌨.

Delete a line -   Hold down ⌨ and press ⌨ or ⌨ to delete all text from the cursor position to the end or beginning of the line or hold down ⌨ and press ⌨ to delete the whole line. (Refer to the Template if you forget which keys to use.)

Delete all text in   Hold down ⌨ and press ⌨.
the document -

Undelete

Deleted text can be restored if you used the ⌨ or ⌨ keys to delete the text, not if you just used the ⌨ ⌨ keys on their own.

The text is restored to the cursor position, so you can use the undelete function to move text around within the document.

To undelete hold down ⌨ and press Ⓤ.

(Undelete is also available in the "Editing menu".)

Changing Case

You can change the case of the text (that is, from capitals to small letters or from small to capitals) without re-typing the words.

Hold down ⌨ and press Ⓤ to change a small (lower case) letter into a capital (UPPER CASE) letter.

Hold down ⌨ and press Ⓛ to change a capital to a small letter.

Keep the keys pressed down to change more than one letter.

Swapping Characters

A common typing error is to type two characters in the wrong order for example "wrod" instead of "word". To correct this error quickly use the swap characters command:

Position the cursor on the "r" of wrod then hold down ⌨ and press ⌃.

Accents

The most commonly used European accents can be typed into your Notepad documents in the following way.

Hold down 🔲 then press the key indicated on the table below for the accent you want, release both keys and then type the letter that you want to be accented. You will not see the accent on screen until you have typed the letter.

Accent	Keys	Valid letters*
Umlaut	[Symbol] [¨ 2]	aeiouAOU
Ring	[Symbol] [% 5]	aA
Circumflex	[Symbol] [^ 6]	aeiou
Acute	[Symbol] [´ .]	aeiouE
Grave	[Symbol] [`]	aeiou

*Note that only the accented letters that are included in the "Special Characters" menu can be typed.

To type a ç hold 🔲 and press [´], hold down [⇧] as well for Ç).

To type an ñ hold down 🔲 and press [N], hold down [⇧] as well for Ñ.

To type ¿ hold down 🔲 and press [? /].

All the accented characters available and foreign currency symbols are available in the Special Characters menu. (Also refer to the chapter on Macros.)

Special Characters

A variety of characters other than those printed on the keyboard is available to insert into your documents.

Hold down the ⌨️ key and press ⌨️ to see all the characters available.
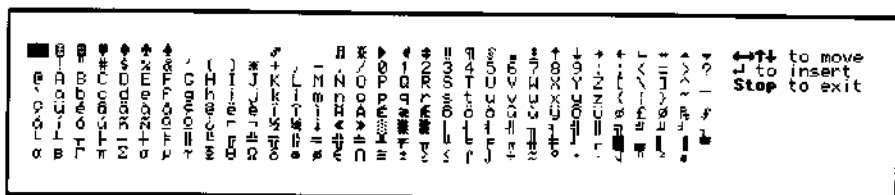
Use the ⌨️⌨️⌨️⌨️ keys to highlight the character you want to use and then press ⌨️.

(These characters can also be inserted into address book or diary if stored as macros first - refer to the chapter on Macros)

Boxes

Horizontal lines, vertical lines and "corners" can be drawn on screen and used to "box" text.

Drawing a box

To draw single line boxes hold down the ⌨️ key and use the ⌨️⌨️⌨️⌨️ keys to draw the box. To draw the corners just "drive" around the corner of the box with the cursor.

Double line Boxes

To switch double lines on or off hold down the ⌨️ and ⌨️ together and press ⌨️ then continue as you would for single line boxes.
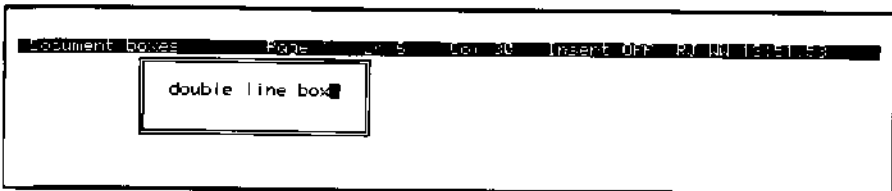
To insert text into a box you have drawn switch Insert Off.

To print ← → ↓ ↑ characters on the screen hold down [Control] [⇧]
[⌃] then hold down [Symbol] and press [Word] [Calc] [↑] or [↑].

Note that the boxes will only print correctly if the printer and Notepad are set up correctly before starting to print.

Codes

"Codes" are used to control the special features of a printer, such as underlining, different sizes and styles of print, subscripts and superscripts. You have a choice when working in a document whether you see the codes or not.

Turn the codes on or off by holding down the [Function] key and pressing [$].

When codes are off your Notepad shows underlined, italic and bold text on the screen but features like subscript or condensed print cannot be shown.

Remove codes by showing them on screen then deleting them as you would any other character.

Codes Off
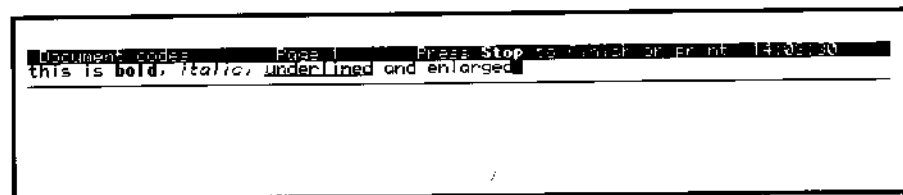
Codes On
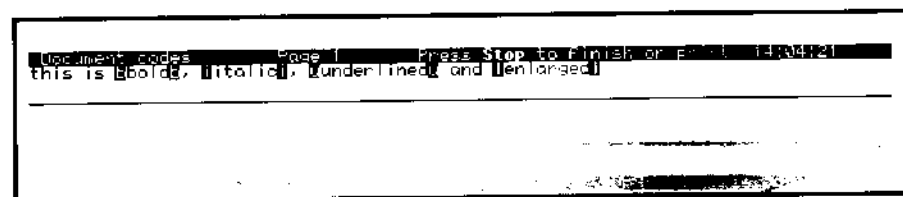
Viewing returns, tabs, ruler lines and spaces

The non-printing characters can all be switched "on or off" on the screen. Hold down ⌷Control⌷ and press ⌷V⌷ then type one of the following letters:

⌷B⌷	status line on/off
⌷S⌷	spaces on/off
⌷R⌷	ruler lines on/off
⌷T⌷	tabs and returns on/off
⌷✓⌷	codes on/off

Inserting the Current Date or Time into a Document

With the cursor at the position you want the date to be inserted hold down the ⌷Symbol⌷ key and press ⌷D⌷ to insert the current date or hold down ⌷Symbol⌷ and press ⌷T⌷ to insert the current time.

Inserting an Address from your Address Book into a Document

To insert an address from your address book into the document you are typing first position the cursor where you want the address to appear. Then hold down YELLOW ⌷Function⌷ and press ⌷D⌷, this will take you directly to the address book:

```
 Address book                    Latest  Thu 20 Aug 1992   14:07
Name      : Brian Layer                    (T)ransfer
Address   : The Essex Brick Co Ltd         (A)dd New Address
            Old Kiln Works                 (E)dit Address
            Chelmsford                     (F)ind Address
            Essex CM0 7DY                  (D)elete Address
Telephone : 0245 123456                    (+) Browse (→)
Fax       : 0245 789000                    press Stop to exit
```

Use ⌷Word⌷ ⌷Calc⌷ or "Find" to find the address you want to insert then press ⌷⌷ to "Transfer". The name, address, and telephone numbers will then be inserted into the document. Use ⌷Control⌷ ⌷5⌷ to delete the line you don't want.

Inserting one document into another

With the document on the screen, position the cursor where you want the second document to be inserted hold down [Function] and press [2]. Highlight the name of the document you want to insert then press [⏎]. This could be used for inserting standard paragraphs.

Moving, copying and deleting blocks of text

Before you can move, copy or delete a block of text you must first mark the block. (The block editing commands are given on the Template.)

Marking a block

First mark the start of the block by positioning the cursor on the first character then hold down [Function] and press [↓↓], mark the end of the block in the same way.

(To quickly move to the start or end of a block hold down [Control] and press [♦] then press [↑↓] or [↓].)

If there are codes in your document for bold or underlining etc, these will show on screen as you mark the block. This is to help prevent you leaving the codes behind when you move, copy or delete a block.

Move block

First mark the block as described above then position the cursor where you want the block to be inserted and hold down [Function] and press [←↓]. The block will move from the old position to the new.

Copy block

First mark the block as described above then position the cursor where you want the block to be repeated and hold down [Function] and press [6]. The text will be copied.

Store a block as a separate document

Storing a block as a separate document allows you to insert that block into other documents (as described above).

First mark the block as described above then press ⌨️. Press ⌨️ C
(to "Copy block or document") you will see the following message:

```
▪Amstrad NC100  ... .  .                                    14:12:18
┌─────────────────────────────────────────────────────────────────┐
│B│                                                                 │
│S│                                                                 │
│T│Copy: enter name for document:  ▪░░░░░░░░░                       │
│H│                                                                 │
│F│                                                                 │
└─────────────────────────────────────────────────────────────────┘
```
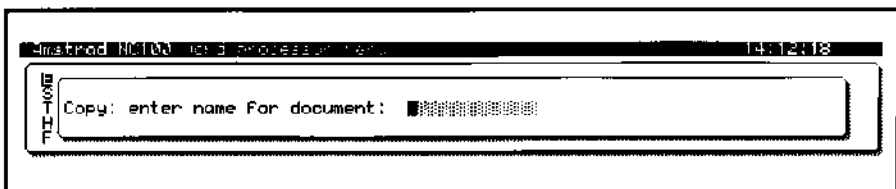
Type in a name for your block then press ⌨️, you are returned to
the document and your block is now stored.

Delete block

First mark the block as described above then hold down ⌨️Function
then press ⌨️ (refer to the Template).

Undelete block

To restore a deleted block position the cursor where you want the
block and hold down ⌨️ and press ⌨️U₄.

To unmark a block

When you have finished **working** with a block hold down ⌨️ and
press ⌨️K₂. This clears the square bracket codes and the
highlighting from the screen. You cannot mark another block
before you have unmarked the first.

Centring text

To centre text on a line use the 'Centre' command. Type the text
to be centred then, with the cursor positioned anywhere on the line
hold down ⌨️ and press ⌨️.

```
▪Doc... .  ... .         Page 1      Press Stop to finish or print  ... 15:15
                              Centred text
─────────────────────────────────────────────────────────────────────────────


```
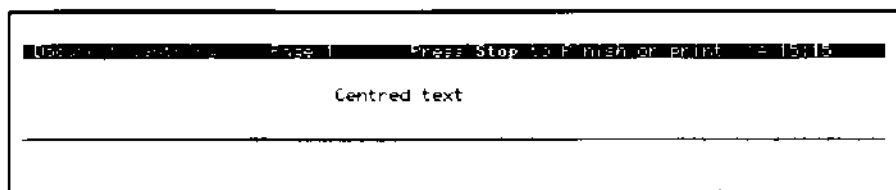
If you make a change to the text later centred use the same
command again to re-centre it.

Italics

To change text to italic use the "Italic" command. Position the cursor at the beginning of the text to be italicised and hold down [Control] and press [←] then repeat this at the end of the text. If you want the word to be italic as you type hold down [Control] and press [←] before you start typing then do the same again when you have finished.

The text will show as italic on screen only if Codes are OFF. If Codes are ON you will see two highlighted letter "i"s in the text; these are the Italic "Codes". To turn Codes on or off hold down [Function] and press [$⁄4].

Cancel Italics

To cancel the italics command you must delete the italic "codes". To do this the codes must be showing on screen, if they are not hold down [Function] and press [$⁄4]. Delete the highlighted "i"s by positioning the cursor on them and pressing [Del].

(Note that whether italics appear in the printed document will depend on the printer you are using and how you have set up the printer and Notepad before printing.)

Bold

To embolden text position the cursor at the beginning of the text to be bold then hold down [Control] and press [&⁄7], do the same at the end of the text. If you want text to be bold as you type hold down [Control] and press [&⁄7] then start typing, when you have finished hold down [Control] and press [&⁄7] again.

The text will show as bold on screen or you will see two highlighted letter "b"s in the text; these are the bold "codes". To turn these codes on or off hold down [Function] and press [$⁄4].

Cancel Bold

To cancel the bold command you must delete the bold "codes", to do this the codes must be showing on screen, if they are not hold down [Function] and press [$⁄4]. Delete the highlighted "b"s by positioning the cursor on them and pressing [Del].

(Note that whether bold appears in the printed document will depend on the printer you are using and how you have set up the printer and Notepad before printing.)

Underlining

To underline text position the cursor where you want underlining to start then hold down ⌨ then press ⌨, repeat this where underlining is to stop. If you want to underline the words as you type hold down ⌨ and press ⌨ before you start typing then hold ⌨ and press ⌨ again when you have finished.

(Note that whether underlining appears in the printed document will depend on the printer you are using and how you have set up the printer and Notepad before printing.)

Changing the character style and size

The Notepad will print your documents with 10 characters per inch (also known as "Pica") but there are other options available in the Style menu.

Whether the changes you have made appear on the printed document will depend on the printer you are using and how you have set up the printer and Notepad before printing.

How to change the character size or style

Position the cursor at the beginning of the text you want to change.

2   Press the ⌨ key.
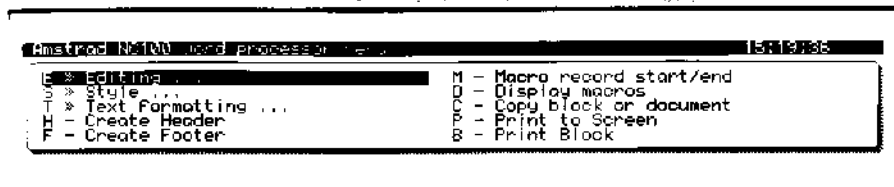
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3   Now select the Style menu by pressing ⑤ or by using the ←
    ⇥ ↓ ↑ keys then pressing ↵.

```
■Style attributes■                                         ■15:26:10■
 B - Bold                    P - Proportional
 C - Condensed               Q - Quality
 E - Elite                   S - Subscript
 I - Italic                  T - SuperscripT
 L - EnLarged                U - Underline
```
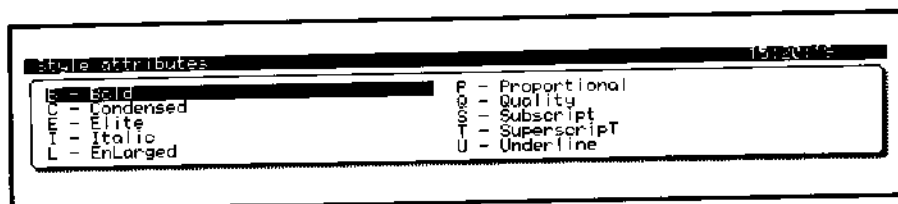
4   Select the style you want using the (cursor) keys and press ↵
    or by typing the letter to the left of the option.

(Note that some combinations of styles will not print together.)

5   A code will be inserted into the document.

```
■Document Report■      Page 1    ■Press Stop to Finish or print■14:26:11■

■Annual Report
_____
```
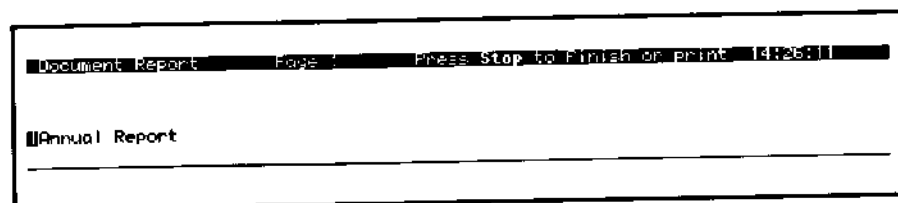
The code should also be inserted where you want the style to finish.
Position the cursor then repeat the above procedure.

```
■Document Report■      Page 1    ■Press Stop to Finish or print■

■Annual Report■
_____
```
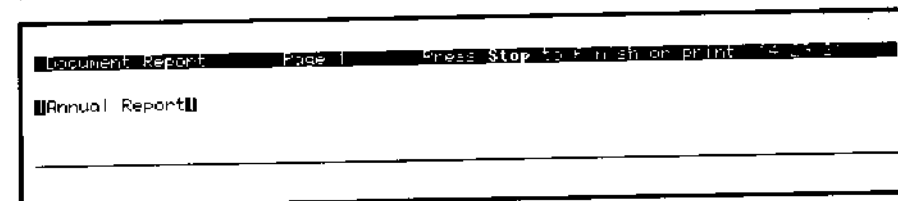
Place markers

You can insert "place markers" into a document in order to get
quickly to a particular place. You can have up to 10 individual
markers or a limitless number of multiple markers.

Insert markers into the document by holding down [Control] and
pressing [●▪] and then typing either a number from 0 to 9 for
individual markers or a ? for a multiple marker. (A message appears
on the status line showing which characters can be used.)

Use the same command when you want to go to a particular place marker, to a block marker or to the Left or Right margins of the text.

To go to the next marker of any type hold down ⌨[Control] and ⌨[⇧] and press ⌨[6➝]. To go to a previous marker press ⌨[%5] .

The word processor menus

There are various menus of word processing functions that can be accessed by pressing the ⌨[Menu] key when a document is on the screen.
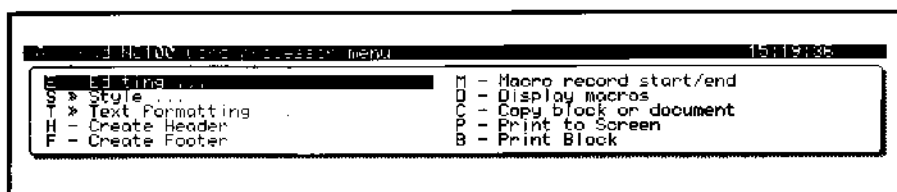
Some of the options have an immediate effect when selected, others require additional actions.

There are quick-key alternatives to some of options that are available in the Editing and Text formatting menus and these are shown in the menus.
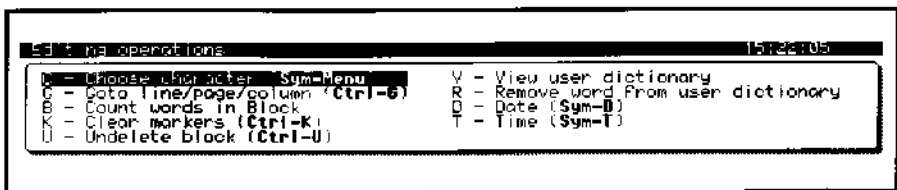
The quick-key alternatives all require two or three keys to be held down an once, so for example (Ctrl-K) means hold down the ⌨[Control] key while you press ⌨[K₂]. "Ctrl" and "Sym" are abbreviations for "Control" and "Symbol".

To get out of a menu at any time press ⌨[Stop] until you return to your document.

For instructions on how to use particular options refer to the relevant chapters in this book.

Documents

Hold down [Function] and press [2] to quickly access the LIST STORED DOCUMENTS screen while you are editing a document. To rename, delete, insert, print or edit another file press [Stored Menu] then select the option you want. To transmit files to another computer you can use the Send or XModem send, refer to the section on transferring files for details.

To get to the LIST STORED DOCUMENTS screen from other parts of the Notepad program hold down [Function] and press [L 3].

Headers and Footers and Page Numbering

Headers and Footers are lines of text which print at the top and bottom of each page within the header and footer margins. A page number can be inserted that will automatically increment.

The commands to insert headers and footers are "Stored Commands" and for more information on stored commands refer to the section later in this manual.

Headers and Footers

The header prints at the top of the page within the header margin, if you want more than 3 lines of header you will have to change the "header margin" (refer to the section on page layout). The header will print on the top of the header margin, a footer will print at the bottom of the footer margin.

Inserting header or footer text:

1   With the cursor positioned on the first line of your document press the [Stored Menu] key. Then press either [H] for header or [F] for footer.

2   The header command is inserted into the document and you
    can now type the text that you want to appear in the header
    or footer, eg:

```
Document Report           Page        Stop to finish or print   14:33:06
>HE Annual Report
```
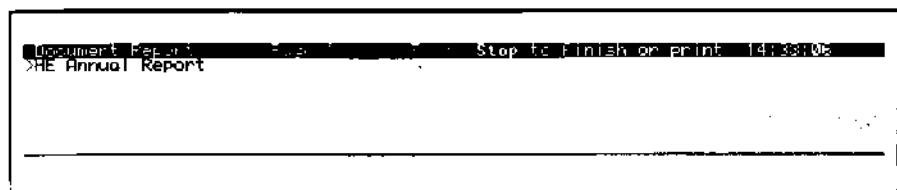
3   If you want to centre the text you can do so by holding down
    [Control] and pressing ⌐ . Note that the > must be in column 1 (on
    the extreme left of the screen) for a header or footer to work.

```
Document Report           Page        Press Stop to finish or print   14:34:??
>HE                    Annual Report
```
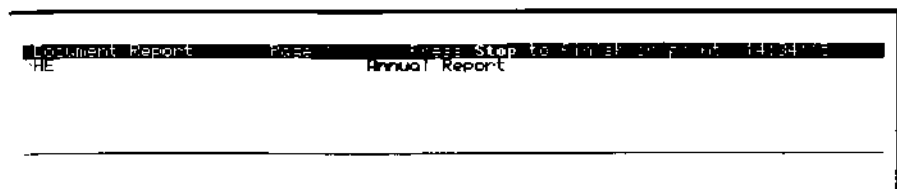
Multi-line headers and footers or differing header and footer text
on odd and even numbered pages can be included using some
of the advanced Stored commands. Refer to the section on stored
commands for more information.

Page Numbering

Page numbers will automatically be inserted where you type a
percent (%) symbol in a header or footer. Page numbering will start
at 1 but you can change this using the PN command, refer to the
section on stored commands for details.

The Go To Command

This is a useful command if you have a long document. You can
go directly to a specific line, column or page number. If you want
to see line and column numbers you will need to switch the "Status"
line on by pressing [Function] [8 8] .

Hold down [Control] key and press [G] .

```
this is the first time I have ever used a computer
this is the second line of the first document I have ever written on a
computer
```

Type in the letter p, l or c then the number, for example to go to page 2 type: p2.

The Go To command is also available at the Editing Menu.

Status Line

The line across the top of the screen when you are typing a document is called the status line. Your Notepad has two types of status line, a simple one for beginners and a more detailed one for advanced users.

Hold down ⌜Function⌝ and press ⌜s s⌝ to switch on the status line.

Line   Column   Right Justified   Word Wrap

```
Document second         Page 1   Ln 1   Col 1   Insert On   RJ Wd '4 14 3(
I seem to be getting good at this now
I have noticed there are no capital letters in my sentences
THIS LINE IS ALL IN UPPER CASE
Now I am getting quite good on this Notepad
```

C (Caps Lock on) R (Recording Macro)
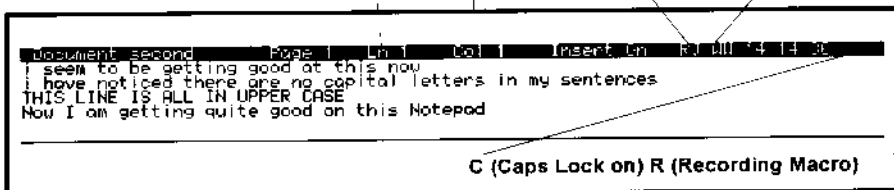
Word wrap and right justification can be switched on or off at the ⌜Function⌝ ⌜5⌝ menu. Insert mode can be switched using ⌜Control⌝ ⌜4⌝.

Page break

Page breaks will automatically occur at the position determined by the page layout. If you want to force a page break before this hold down ⌜Control⌝ and press ⌜P x⌝. The page break stored command will be inserted into the document:

```
Document Report         Page 2   Press Stop to finish or pr nt   4:33:09

For more information please see the following page.
>PA
================================================================================
```
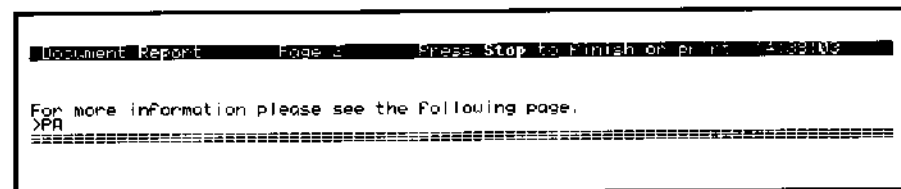
Page Layout

The way your Notepad "lays out" the text on the paper can be altered by changing the "Layout" menu and inserting Ruler Lines.

The illustration below shows how the margins and ruler lines affect the page layout.
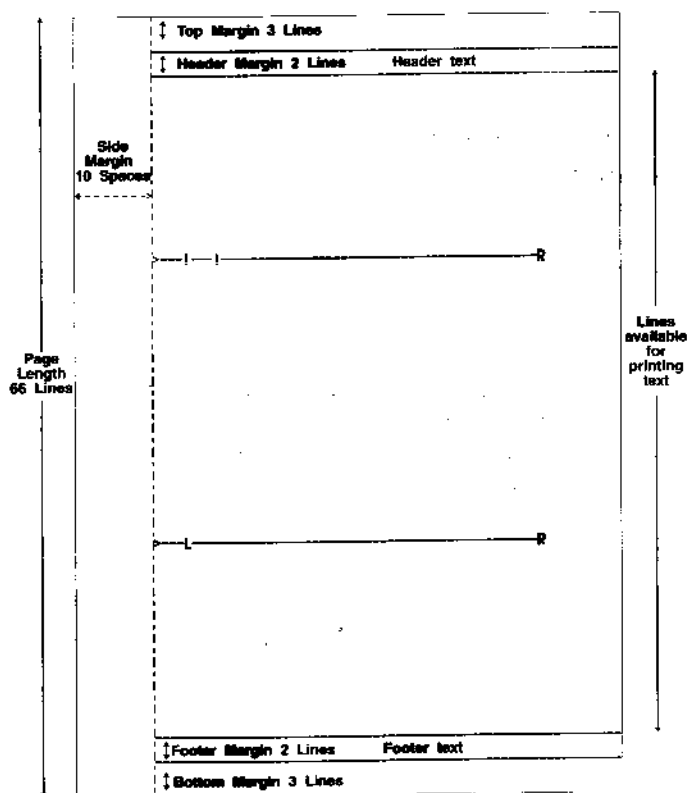
The text is printed immediately to the right of the side margin. To centralise the text on the page the R on the ruler line must be correctly positioned.

To indent a paragraph insert a ruler line with an L where the text is to start.

Layout Menu

Use the Layout menu to alter the margins that will appear on the printed page; hold down [Function] and press [8/7 7]:

```
■■■■■■■■■■ Overtype or ← → to change, ↑ ↓ to move, Stop to finish
Page length (lines)                    (66)              66
Top margin (lines)                     (3)               3
Header margin (lines)                  (2)               2
Footer margin (lines)                  (2)               2
Bottom margin (lines)                  (3)               3
Side margin (chars)                    (5)               5
Line spacing (lines)                   (1)               1■
```
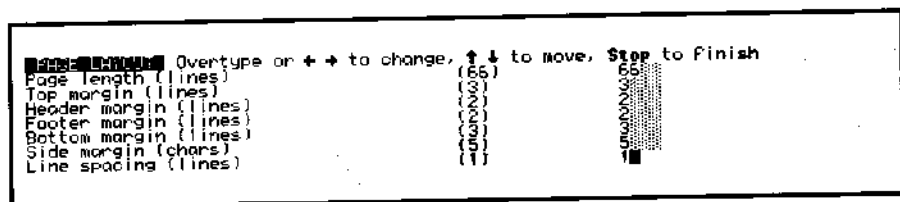
Use [↑] or [↓] to select the margin or other value you want to change, delete the current value using [Del] then type in your new value and press [↵] , change lione spacing using [Word ←] [Calc →] ,when you have completed all the changes press [Stop] to return to the editing screen.

Page Dimensions

The settings in this menu govern the length of the page on your Notepad screen and should be compatible with the paper you want to print on, if the settings are wrong the document may not print onto paper in the correct position.

Page Length: This is expressed as the number of lines on the page, there are 6 lines to an inch, so, for example, A4 paper has 72 lines.

Top and Bottom Margins: These are the blank areas at the top and bottom of each page. You may want to adjust these if, for example, you are using headed notepaper and need to increase the top margin so printing starts further down the page.

It is important to note that many printers are physically unable to print on the top and bottom few lines of a single sheet of paper and you must allow for this. For example, if your printer cannot print on the top inch of paper, make the top margin at least 6 lines.

Header and Footer Margins: The header and footer margins are ignored if there is no header or footer text to print. If you have inserted a header or footer make sure you allow enough margin for it.

Aligning Text using "Ruler Lines"

Ruler Lines enable you to align the text in different ways, for example if you want to indent a paragraph (on the left or right) or type a table of figures, create a Ruler Line setting left or right indents and tab positions where you want them.

All the text after the ruler line will conform to it.

Inserting a Ruler Line

To insert a Ruler Line into a document simply type a "greater than" symbol (>) at the start of a new line, type an "L" where you want an indented left margin, exclamation marks (!) for tab positions and an "R" where you want the line to finish. Use hyphens between the symbols, this is not essential but it does make the ruler line easy to pick out on the screen. All the text after the ruler line will conform to it until another ruler line is inserted. For example:
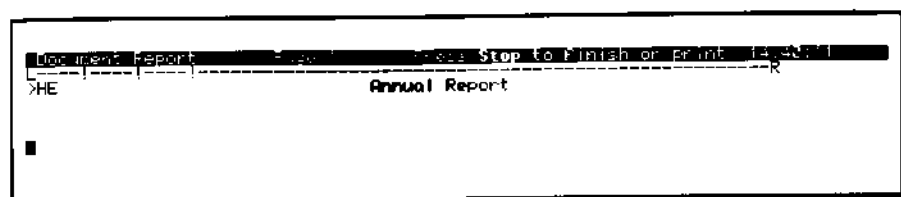
```
 Document Report              Stop to Finish or print   14.41
L----I----I------------------------------------------------R
>HE                      Annual Report

■
```

When you start a new document there is already a standard ruler line set up like the one above, this will not be visible unless you change "Show Ruler" to YES in the "Configure" menu. Ruler lines are not printed.

```
▓ Document Ruler:doc.doc  Page 1   Ln 5    Col 3        Cm   PJ RU 14:43:54
|----|----|----|---------------------------------------------------------R
When you start a new document  there  is already a standard ruler line
set up like the one above, this  will not be visible unless you change
"Show Ruler" to  YES  in  the  Configure  menu.   Ruler  lines are not
printed.┘
┘
>----┴----!----!-------------------------------------------------------R┘
1→   This paragraph  is  indented  on  both  sides.   Text  can be
→    inserted to the left of  the  margin  to enable you to number
→    the paragraph.┘
┘
>----!----┴----!-------------------------------------------------------R┘
→    1a)→ Position the cursor  on  the  outside  margin  using the
→    →    cursor keys then press the tab key, type the number then
→    →    press tab and start typing the paragraph.┘
┘
→    1b)→ Always use tabs to align  text  - they make re-alignment
→    →    easier when you make any  changes  and are essential for
→    →    typing tables, for example:┘
┘
>----!----┴-----------------------------------!--------!------!------R┘
→         →                                  Boguette→Sandwich→Roll┘
┘
→         Cottage Cheese→                     1.30→   1.10→  0.90┘
→         Provencal→                          1.30→   1.10→  0.90┘
→         Bacon & Avocado→                    1.60→   1.30→  1.10┘
┘
>----!----!----!-------------------------------------------------------R┘
When you want to revert to using the standard ruler line hold down the
[Control] key and type "d".  The standard ruler line is inserted.┘
```

Deleting or Editing a Ruler Line

The Ruler Lines that you insert can be deleted or edited in the same
way as all the other text. Move or insert more tab positions at any
time by inserting and deleting exclamation marks.

Using Tabs

Set tab positions on your ruler line by typing exclamation marks (!)
then use the tab key (⊏⇥) to move from one column to the next.

When using tabs it makes work a lot easier if you show the tab
characters on screen, to do this hold down [Function] and press [£ 3]
to get into the Configure menus then press [↓] till you reach the
"View Options" menu.

```
▓ VIEW OPTIONS ▓ Press ← → to change, ↑ ↓ to move, Stop to Finish
Show printer codes?                        (No)           No
Show spaces?                               (No)           No
Show tabs and returns?                     (No)           No
Show status information?                   (No)           No
Show ruler                                 (No)           No▓
```

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Move the cursor down to "View tabs and returns" then use the left
or right cursor to switch to "Yes" then press ⌊Stop⌋.

```
▮Document A La Carte    Page 1         Press Stop to finish or print  15:35:42
>--------L------------------------------|--------|--------|-----R┘
→               →                Baguette→Sandwich→Roll┘
┘
→        Cottage Cheese→          1.30→   1.10→   0.90┘
→        Provencal→               1.30→   1.10→   0.90┘
→        Bacon & Avocado→         1.60→   1.30→   1.10┘
```

Decimal Tabs

To automatically align figures at the decimal point, insert a decimal
tab position on a ruler line using a full stop (.), for example:

```
▮Document Kalender.doc Page          Press Stop to finish or print  14:58:55
>--------L----------------------------------|----|----|-----R
                                 Baguette Sandwich Roll
>--------L----------------------------------.----.----.-----R
         Cottage.Cheese            1.30    1.10   0.90
         Provencal                 1.30    1.10   0.90
         Bacon.&.Avocado           1.60    1.30   1.10
```

Right Align Tab

If you don't type in a decimal point at a decimal tab the text will
be "right aligned". To align text against the right margin use the tab
key to position the cursor at the end of the line then type and press
return, for example:

```
▮Document Letter       Page          Stop to Print               15:05:54
L----|----|----|----|------------------------------------------R
→    →    →    →                                    Amstrad plc┘
→    →    →    →                                    PO Box 1831┘
→    →    →    →                                    BRENTWOOD┘
→    →    →    →                              Essex CM14 4ER┘
■
```

Find and Replace

When you want to find a particular word, or piece of text within a
document you can use Find. To find the word or text and replace
it with different text use Replace.

W

To use "Find" hold down [Function] and press [⅚], type in the word or text to find and press [↵]. To find and "Replace" hold down [Function] and press [6↵], type in the text to find press [↵] type the replacement text and press [↵].

The following characters and the printer control codes cannot be entered directly into the text to find or replace but you can enter them using an exclamation mark as follows:

Printer control code	!letter
question mark	!?
exclamation mark	!!
hard return	!.
soft hyphen	!-
non-break hyphen	!_
non-break space	! space
search for specified code	!number

Wildcards - a question mark (?) can be used to represent any single character except for a ↵ and you can use an unlimited number of wildcards. So, for example, to find all the occurrences of "recognize" and "recognise" you should type in "recogni?e" as the text to find.

When you have entered the text you can press return for a simple search forwards from the current cursor position to the first occurrence, ignoring the case of letters and finding the text even if it occurs as part of a longer word and asking for confirmation before replacing a piece of text.

You can select one or more of the search options. The options are:

G - global: Search the whole document from the start regardless of where the cursor was when selecting "Find".

C - match case: Only find occurrences where upper and lower case matches with the text you have entered.

B   Search backwards from the cursor position to the start of the document.

W   Only search for whole words.

A	Find/find and replace all occurrences to the end of the document, the total number of occurrences/replacements is given on screen when finished.
n	Find the *n*th occurrence of a piece of text. Type any number up to 255.

Using Find

Once you have typed the text and selected the options, if any, you are returned to the document and the cursor will be on the first occurrence. To find the next occurrence hold down ⌐⎯⎯⌐ and press ⌐⎯⌐, to search back for the previous occurrence hold down ⌐⎯⌐ and press ⌐⎯⌐. If not found a message `xxxx not found` will appear on the status line and you will hear a beep.

Using Replace

The cursor will be positioned on the first character of the first occurrence of the text to find and a messages, Replace text y for yes n for no? will be displayed. Press ⌐⎯⌐ to replace the text and move on to the next occurrence. Press ⌐⎯⌐ to move onto the next occurrence. To finish finding and replacing press ⌐Stop⌐.

Examples:

To find all occurrences of the word "text" in lower case only, starting at the cursor position:

Find:	text
Options:	CW

To convert all occurrences of "plc" or "Plc" to PLC, confirming each replacement:

Find:	plc
Replace with:	PLC
Options:	GW

To find the 12th 8 letter word:

Find: ????????

Options: WG12

Macros

What is a Macro?

A macro is a sequence of keystrokes stored together so they can be reproduced by using just two keys. So, as a simple example, you can save a frequently used phrase to save yourself having to re-type it every time. At a more advanced level you can use Macros to execute commands or to quickly insert a "Special Character" into your document.

A few macros are already on your Notepad; for example when you insert the current date into a document by holding down (Symbol) and pressing [D] you are using a macro. Other macros are set up to give you European accented letters. The table below shows all the ready made macros.

a	ä	m	μ	s	ß	E	Æ
c	ε	n	ñ	t	time	N	Ñ
d	date	o	ö	u	ü	O	Ö
e	œ	p	¶	A	Ä	S	ß
h	¹/₂	q	¹/₄	C	ξ	U	Ü

To use a macro hold down (Symbol) and press the letter key, hold down (Symbol) and (shift), for the capital letters.

How to record a Macro "Phrase"

1 With a document on the screen press the [Secret Menu] key.
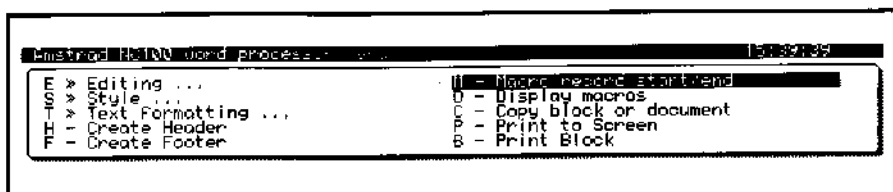
```
▐Amstrad PcW10D word processor....             ▐ 15:39:39▐
   E » Editing ...                  M - Macro record start/end
   S » Style ...                    D - Display macros
   T » Text Formatting ...          C - Copy block or document
   H - Create Header                P - Print to Screen
   F - Create Footer                B - Print Block
```

2 Select "Macro Record start/end" by using the [←Word] [Calc→] [↑] [↑]
   keys to highlight the option then pressing [⏎] or by pressing [Mo]:

```
▐                                                           ▐



   Press Symbol and letter, then key sequence:

```
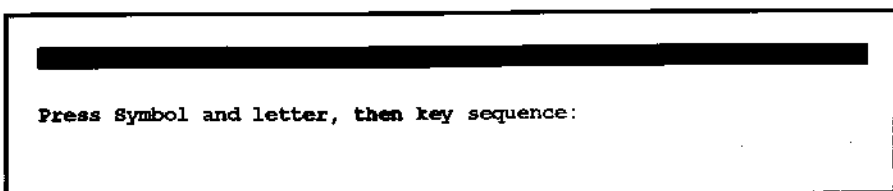
3 Hold down [Symbol] (or [Symbol] and [^]) press a letter key. You are
   returned to the document. (While you are recording the macro
   an "R" shows on the top right hand corner of the screen.)

4 Type in the phrase you want to store. (In this example we are
   storing "Yours sincerely")

```
▐Document Letter         Page 1    Press Stop to ... et or print  15:11:08   R

   Yours sincerely█

```
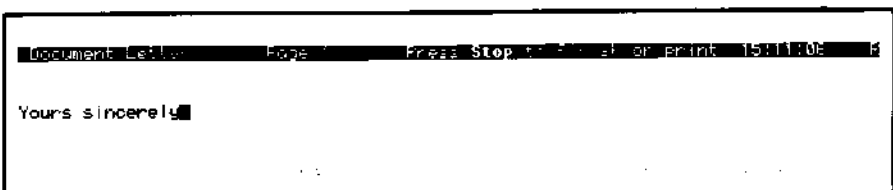
5 When you have finished typing the phrase press [Secret Menu] and select
   "Macro record start/end" again by using the [←Word] [Calc→] [↑] [↑] keys
   to highlight the option then pressing [⏎] or by pressing [Mo]. If
   you make a mistake while recording a macro (step 5 above)
   then start again.

How to record a Macro "Command"

In this example we are storing the command to change to large print size under the ⌜symbol⌝ ⌜L a⌝ macro. A "Special Character" can be stored in the same way.

1 With a document on the screen press the ⌜Secret Menu⌝ key.
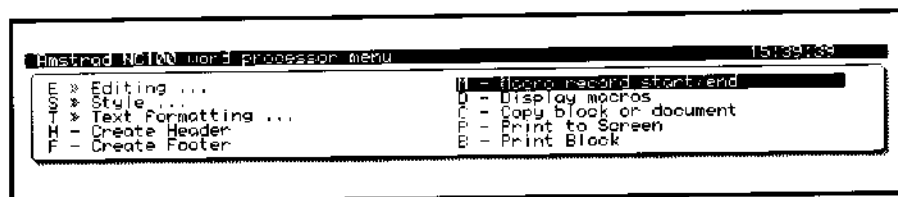
```
Amstrad NC100 word processor menu                    15:39:39
  E  » Editing ...           M - Macro record start/end
  S  » Style...              D - Display macros
  T  » Text Formatting ...   C - Copy block or document
  H  - Create Header         P - Print to Screen
  F  - Create Footer         B - Print Block
```

2 Select "Macro Record start/end" by using the ⌜Word⌝ ⌜Calc⌝ ⌜Diary⌝ ⌜↑⌝ keys to highlight the option then pressing ⌜↵⌝ or by pressing ⌜M a⌝:

```


Press Symbol and letter, then key sequence:


```

3 Hold down ⌜symbol⌝ press ⌜L a⌝. You are returned to the document. (While you are recording the macro an "R" shows on the top right hand corner of the screen.)

4 Now carry out the command or procedure you want to store.

   For this example press the ⌜Secret Menu⌝ key, select the Style menu by pressing ⌜s⌝, then select Enlarged by pressing ⌜L a⌝. You are returned to the document and the enlarged print code shows on the screen:

5 Press ⌜Secret⌝ then press ⌜M a⌝. You are returned to the document and the macro is stored. If you make a mistake while recording a macro (step 5 above) then start again.

To insert the enlarged code into any document you can now hold down ⌜symbol⌝ and press ⌜L a⌝.

Displaying the Stored Macros

A list of all your stored macros is displayed on the screen if you select "Display macros" at the Editing Menu:

```
Amstrad NC100 word process...  ...                    15:49:41
  E » Editing ...                M - Macro record start/end
  S » Style ...                  D - Display macros
  T » Text formatting ...        C - Copy block or document
  H - Create Header              P - Print to Screen
  F - Create Footer              B - Print Block
```
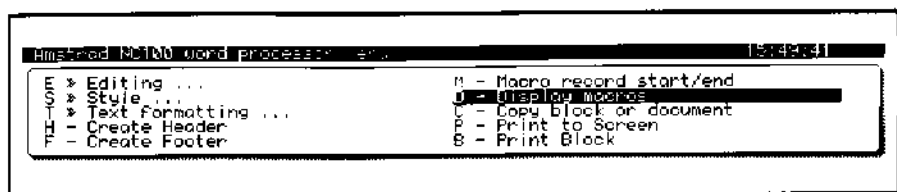
You may not understand some of the macros listed, refer to the appendices for further details.

Spell Checking

Your Notepad word processor comes with a 48,000 word dictionary and you can add words to it that you regularly use. The spell checker compares each word in your document against those in the dictionary, when it finds a word that is not in the dictionary it highlights the word and a menu shows on screen with various options allowing you to store the word in the dictionary, ignore it, change the word yourself (edit) or select a word from the dictionary. You can also spell check a single word.

For instructions on how to use the spellchecker (Spell word and Spell text) refer to the front section of this manual.

User Dictionary Upkeep

Each word you "Store" when using the spell checker is stored in your User Dictionary. You can view" the words stored and delete words that you mis-spelt or no longer need.

View the words in the User Dictionary

While a document is on the screen press the [Menu] key:

```
Amstrad NC100 word process...  ...                    15:19:36
  E » Editing ...                M - Macro record start/end
  S » Style ...                  D - Display macros
  T » Text formatting ...        C - Copy block or document
  H - Create Header              P - Print to Screen
  F - Create Footer              B - Print Block
```
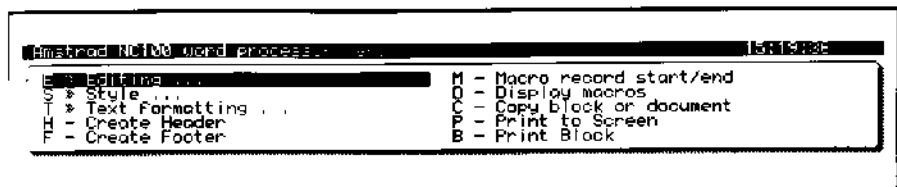
2 Select the Editing menu by pressing ⌨E⌨.

```
Editing operations                                          15:52:15
 C - Choose character (Sym-Menu)   W - View user dictionary
 G - Goto line/page/column (Ctrl-G) R - Remove word from user dictionary
 B - Count words in Block          D - Date (Sym-D)
 K - Clear markers (Ctrl-K)        T - Time (Sym-T)
 U - Undelete block (Ctrl-U)
```
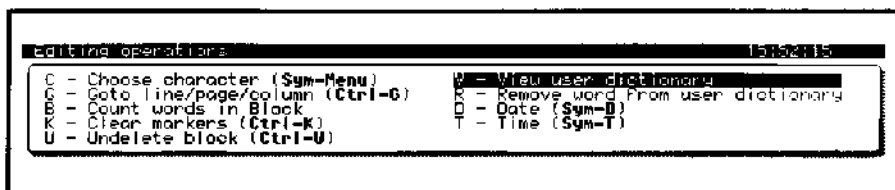
3 Press ⌨V⌨ to select "View User Dictionary".

The words on the screen cannot be changed or removed and pressing any key will return you to your document.

Remove a word from the User Dictionary

Only words that you have stored can be removed.

1 While a document is on the screen press ⌨Select Menu⌨.

2 Press ⌨E⌨ or ⌨↵⌨ to select the "Editing Menu"

3 Press ⌨↵⌨ to select "Remove word from user dictionary"

```
Type word to delete from the user dictionary and press ↵ ■
```
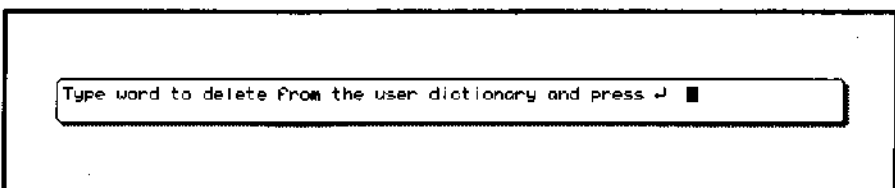
4 Type the word then press ⌨↵⌨; the word is removed and you are returned to the document.

The word must be typed exactly as it is stored, if you type it differently you will see the message:

```
Type word to delete from the user dictionary and press ↵ Blenkinsop
Not in user dictionary. Press a key: ■
```

(If this happens "View the User Dictionary" to see how you spelt the word originally, then try again to remove it.)

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Counting Words

Your Notepad will count all the words in your document, just hold down [Function] and press [⸱] .

```
█Document spell          Page 1          Press Stop to finish or print █▓▒░▒
We are going to write a  memo  with  deliberate mistakes so we can use
the┌──────────────────────────────────────────────────────────────┐
   │Counting ... 323 words                                          │
   │Press Stop to exit ...                                          │
   └──────────────────────────────────────────────────────────────┘
```
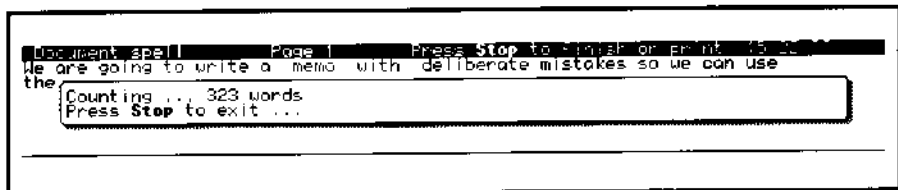
Configure

Change the default word processing settings using this menu. If, for example, you prefer always to see the codes on screen change the "Show Printer Codes" setting to (Yes). When you want to switch them off temporarily use the "Codes on/off" ([Function] [$]) from within the document.

To use the Configure menu hold down the YELLOW [Function] key and press [⑤]; there are several menus move to the next by pressing [↑] key:

```
█1. EDITING OPTIONS█ Overtype or ← → to change, ↑ ↓ to move, Stop to Finish
Insert on/off                                (On)              On█
Word wrap                                    (On)
Right justify                                (On)
Decimal character                            ( )
Key repeat startup delay (100th secs)        (50)
Key repeat period (100th secs)               (5)
Cursor flash period (100th secs)             (50)
```

```
█2. VIEW OPTIONS█ Press ← → to change, ↑ ↓ to move, Stop to Finish
Show printer codes?                          (No)              No█
Show spaces?                                 (No)
Show tabs and returns?                       (No)
Show status information?                     (No)
Show ruler                                   (No)
```

To change one of the settings use [↓] to select the option then use [←] [→] to change the setting.

Key Repeat Startup delay

The time delay before a character starts to repeat when a key is held down can be changed. You may want to change this if, for example, you are not a trained typist and you often unintentionally repeat characters, however it will also cause a delay when you want to hold down a key, as when typing a line of hyphens or full stops. Increase the value to give a longer delay, decrease it to shorten the delay.

Key Repeat

The speed at which the character is repeated on screen as you hold down the key can be increased or decreased to suit your needs. To slow down increase the value, to speed up decrease the value.

Cursor Flash Period

Change the flash speed of the cursor, to slow down increase the value, to speed up decrease the value.

Printing

Most printers will be able to print your Notepad documents, although they may not be able to print all the various styles (bold or italic for example) on paper that are available in the word processor.

Connect to the Printer

Connect your Notepad to the printer using a standard parallel centronics printer lead (or a serial lead if the printer is serial). Most printers will already have this type of lead connected, so just connect this into the PARALLEL or SERIAL port on the back of your Notepad.

Switch on the **Notepad** and the printer.

The printer must be switched on and be "on-line"; if you are not familiar with the printer you are using refer to the manual supplied with the printer.

Select the Document you are going to print

Hold down YELLOW ⟨Function⟩ and press ⟨P x⟩, your list of documents is shown on the screen. Highlight the name of the document you want to print by using ⟨Word⟩ ⟨Calc⟩ ⟨↑⟩ ⟨↑⟩.

Before you press ⟨↵⟩ to start printing you should set up the Notepad for your printer using the Printing options menu as described below:

Press the ⟨Menu⟩ key, the following menus will show on screen:

```
 PRINT OPTIONS  Overtype or ← → to change, ↑ ↓ to move, Stop to finish
Start at page number              (1)          1
  End at page number              (999)        999
Near letter quality / Draft       (NLQ)        NLQ
Continuous printing?              (Yes)        Yes
New page after print?             (Yes)        Yes
Form feeds enabled?               (Yes)        Yes
Line feeds printed?               (Yes)        Yes
```

```
 PRINTER CONFIGURATION  Press ← → to change, ↑ ↓ to move, Stop to finish
Printer                           (Simple)     Simple
Printer character set             (IBM)        IBM
Printer port                      (Parallel)   Parallel
Serial port - Baud rate           (9600)       9600
Serial port - Data/stop bits      (8/1)        8/1
Serial port - Parity              (None)       None
Serial port - Handshake           (On)         On
```

Press ⏎ or ⬇ to move down the menu. Use ⬅ or ➡ to change an option.

Select one of the printer types:

Simple - This option will allow you to print on any printer but styles such as bold or italic will not be printed, just straightforward text; underlining might print although this will depend on the type of printer.

IBM 24 pin - Whatever the make and model of your printer, if it is compatible with the IBM 24 pin Printers (check the manual supplied with the printer - you may have to adjust the printer in some way) you can use this setting.

Epson 9 pin - Whatever the make and model of you printer if it is compatible with the Epson FX range (refer to the manual supplied with the printer) you can use this setting.

Epson 24 pin - If your printer is compatible with the Epson LQ range you can use this setting (refer to your manual supplied with the printer).

Canon BJ10E - Use this setting if you are using a BJ10E.

Laserjet - If your printer is an HP Laserjet or compatible with one use this setting. For other laser printers use the Epson 24 pin setting if the printer can emulate it.

Printer Character Set

Use the Epson or IBM character set, if you want to print accented characters and £ signs you will need to select the IBM characters set. Whichever character set you select make sure that the printer is set up to print the same (refer to the manual supplied with your printer).

Serial Port

These settings are for connection via the serial port, for printing to take place the printer and the Notepad must be set to the same values.

The settings in your Notepad are the best settings to use, if you can adjust your printer to these settings do so (refer the manual supplied with the printer).

(If you are using the parallel port don't adjust these settings.)

Starting to Print

If you see the message '`Plug in or switch on the printer ----`" even though you have done so, check that paper is loaded and that it is switched "on-line".

The '`Finished printing`' message may appear almost immediately even though the printer has just started, this is because the whole document has been stored in the printer's buffer memory. You can press `STOP` to exit and continue working.

When you have finished setting up the printer press `STOP` to leave the menu. Return to the print document screen, and with the highlight on the document you want to print press ⏎.

If you have printing problems

If the document does not print properly it is probably because you have not set-up the Notepad and/or printer correctly. Try setting the Notepad to a different type of printer using the Printer Options menu, you may find the correct setting using the "trial and error" method but, if all else fails, you can use the "simple" setting.

Sending/Receiving documents

In normal use you will probably just enter documents into your Notepad and then connect to a printer whenever you want to print them. For many people this will be all that is required. However, at some point you may find that you would like to transfer one of your documents from the Notepad to another computer (perhaps another Notepad even). Or you may have a document on another computer that you would like to transfer into the Notepad. All these things are possible. The Notepad includes functions to both send and receive documents.

One good reason to transfer documents from the Notepad to another computer (probably an IBM PC compatible) is that you want to store them on that computers hard disk. The Notepad itself can only store a limited number of pages but, by regularly storing old documents on another computer with a much larger storage capacity, you can keep 100's or 1,000s of old documents for reference.

Because the word processor built into your Notepad is a development of the Protext word processor produced by Arnor, you may like to use the Notepad for entering documents on the move and then transfer them across to a desktop computer which also can run Protext to work on them in more detail when you return to the office. There are versions of the Protext software to run on all well known types of computer (IBM compatibles, Amstrad PCW, Commodore Amiga, Atari ST, Acorn Archimedes) They are available from:

Arnor Ltd
611 Lincoln Road
Peterborough
PE1 3HA

Tel: 0733 68909
Fax: 0733 67299

Even though you don't use Protext on your desktop computer you may still want to transfer documents to it to use in a different word processor. In this case you can still transfer the documents but they will lose all their special formatting such as rulers, bold, italic, underline, etc.

You can transfer documents in the other direction (from desktop into the Notepad) as well. You would do this when you want to retrieve a previously saved document or when you want to continue working on a document at home that you had started in the office. If you use Protext on the desktop machine then you can transfer documents to the Notepad before you go home, work on them in the evening or over weekends and then transfer them back to the desktop in the office and all the layout and text effects will be retained. Even if you don't use Protext you can still transfer the text back and forward between machines but special layouts can only be inserted just before you are about to print the final document.

Note: In the following the word **file** is often used instead of **document**. The two things are really the same but the Notepad chooses to use the more correct and meaningful word "document". On PC's and other computers documents are stored in "files" on disk. Also note that the following tends to refer just to **PC** computers but what is said will apply equally as well to any other type of computer.

Serial or Parallel transfers ?

The Notepad can transfer documents either through its serial port using Simple or XModem file transfers. Or it can use the parallel port. Using the serial port you will just need a simple cable and some communication software for the PC or other computer that you are trying to connect to.

If you want to use the **parallel** port you must use the Lapcat software and cable that is available from Arnor at the above address. The advantage of using parallel transfers is two fold. Firstly you don't have any problems getting the right cable and making the right software settings and secondly, it is a faster method of transferring documents. Instructions on how to perform Lapcat transfer are given in the manual accompanying the Lapcat cable and software.

Serial transfers

Before you can transfer documents to and from the Notepad you must physically connect it to the other computer. There are two ways in which you might do this.

"Local" connection
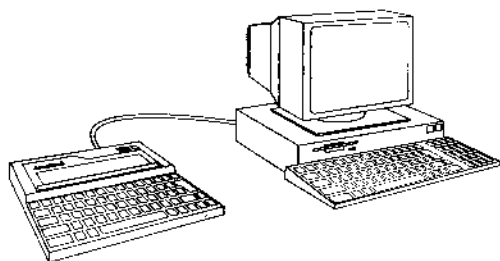
If the other computer is located in the same room as the Notepad
then it will only be necessary to use a simple cable to connect the
two machines together. When you do this you connect the serial
ports of the two computers together. The serial port on your
Notepad is the 9 pin D shaped connector on the back of the
machine. The actual connection for a serial port on another
computer may vary from machine to machine. IBM PC compatible
machines normally have either a 9 pin connector the same as the
Notepad or they may have a 25 pin connector.

"Remote" connection

Connection using modems over telephone system.
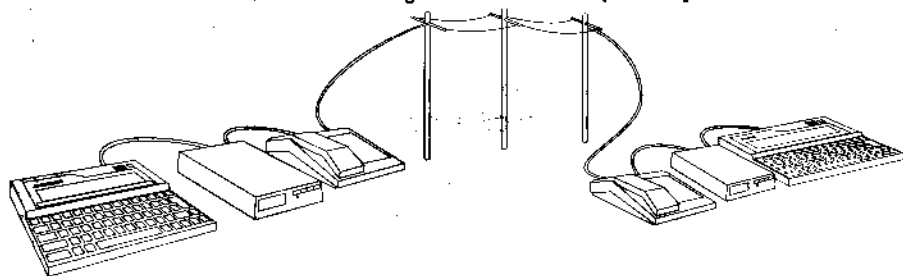
If the other computer is some distance away then you will need
to make use of a device called a Modem that allows computers
to send information over the telephone. Both the distant computer
and the Notepad must have a modem attached to their serial
ports. This second option is effectively the same as a local
connection except that the Notepad is connected to a modem
using a "straight through" cable in which "Transmit" (Tx) connects to
"Transmit" and "Receive" (Rx) connects to "Receive" and so on. You
establish the connection by using the serial terminal program built

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into the Notepad and then proceed as if the connection were local - described below.

The Cable to use

The Notepad's serial port has a 9 pin, male, D-type connector wired as follows:

Pin	Signal	Abbreviation	Direction	
1	Not connected			
2	Receive data	RX	In	
3	transmit data	TX	Out	Note:
4	Data terminal ready	DTR	Out	DTR just duplicates RTS
5	Ground	GND		
6	Not connected			
7	Request to send	RTS	Out	
8	Clear to send	CTS	In	
9	Not connected			

```
1  2  3  4  5
O  O  O  O  O   RS232 connector
                looking into the
 O  O  O  O     back of NC100
 6  7  8  9
```

The computer you are trying to connect to will probably have either a 9 pin or 25 pin, male, D-type connector. Assuming it is wired the same as an IBM compatible PC computer, the connections will be as follows:

```
1  2  3  4  5
O  O  O  O  O   RS232 connector
                looking into the
 O  O  O  O     back of a PC (9 pin)
 6  7  8  9
```

```
1  2  3  4  5  6  7  8  9  10  11  12  13
O  O  O  O  O  O  O  O  O  O   O   O   O    RS232 connector
                                           looking into the
 O  O  O  O  O  O  O  O  O  O   O   O       back of a PC (25 pin)
 14 15 16 17 18 19 20 21 22 23 24 25
```
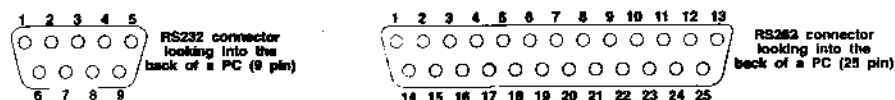
Signal	Abbreviation	Direction	Pin N° on 9 pin	pin N° on 25 pin
Ground	GND		5	7
Transit data	TX	Out	3	2
Receive data	RX	In	2	3
Request to send	RTS	Out	7	4
Clear to send	CTD	In	8	5
Data set ready	DSR	In	6	6
Data terminal ready	DTR	Out	4	20
Ring indicator	RI	In	9	22
Frame ground				1

As you can see, both the Notepad and the other computer (if it has a nine pin connector) have their transmit data signal on pin 3 and their receive data signal on pin 2. You cannot just connect the similar named signals because transmit would connect to transmit and receive to receive. The transmit from one end must be connected to the receive line at the other and vice versa. Some of the other signals must be crossed over in a similar way.

A cable that crosses over the various signals in this way is often called a **Null Modem Cable**. The correct wiring for cables to connect the Notepad to an IBM PC compatible are:

```
9 pin to 9 pin   Null Modem Cable

NC100                Other Computer    NC100      Other
RX   2──────────2 RX               2   to   3
TX   3──────╳───3 TX               3   to   2
DTR  4──────────4 DTR              4   to   6
GND  5──────────5 GND              5   to   5
DSR  6──────╳───6 DSR              6   to   4
RTS  7──────────7 RTS              7   to   8
CTS  8──────╳───8 CTS              8   to   7
```

```
9 pin to 25 pin   Null Modem Cable

NC100                Other Computer    NC100      Other
RX   2──────────2 TX               2   to   2
TX   3──────────3 RX               3   to   3
DTR  4──────────4 RTS              4   to   6
GND  5──────╳───5 CTS              5   to   7
DSR  6──────────6 DSR              6   to   20
RTS  7──────╳───7 GND              7   to   5
CTS  8─────────20 DTR              8   to   4
```
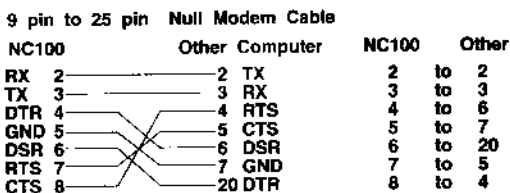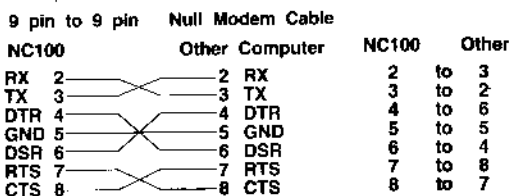
If you are not able to buy a cable that is specifically designed for connecting the Notepad to other computers, you should be able to show these details to any cable manufacturer advertising in the computing press and you will find that they will easily be able to make up the right cable for you.

Making the software connect

Once you have plugged the correctly wired cable into both the Notepad and the other computer you are trying to connect to, you are ready to try and see if the two will communicate. The Notepad already has the necessary software to do this built-in.

On the other machine you will need to use some communications software. The software you use will depend on the type of computer but, for example, if you are using a PC compatible that has a copy of Windows 3 then you already have the necessary software. There is a program called Terminal included in Windows that will do. The communications software you use can be very simple indeed although it would be best if it supports Xmodem file transfers.

Setting the Notepad for the right type of transfer

The very first thing to do before starting to try and make the software connection with the Notepad is to check that the file

transfer port is set correctly and choose the format to send the documents in.

From the very top menu of the Notepad:

Press the [MENU] key to access the system configuration menu:
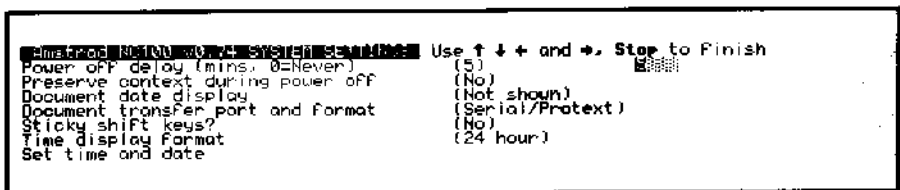
Now set the "Document transfer port and format" to the correct setting. There are four possible options:

Serial/Protext
Serial/ASCII
Lapcat/Protext
Lapcat/ASCII

The Serial or Lapcat choice determines if the serial or parallel port will be used. Only choose the Lapcat options if you have purchased the necessary cable and software from Arnor.

By the way, if you ever attempt to transfer files using the serial port and find that it does not work check this setting first.

The choice of Protext or ASCII determines whether the documents sent from the Notepad to a PC will retain all of their special formatting codes which the PC/PCW/Amiga/St/Archimedes version of Protext will understand. Set this to Protext if you are going to use the Protext word processing software (available from Arnor) on your other computer. If not set it to ASCII. In this second case do not expect formatting codes (such as bold, italic, underline, etc.) to be retained.

The Notepad's Serial Terminal program

When first making the connection, and before transferring any documents, it is probably best on the Notepad to call up its own Serial terminal program. You do this by pressing [Function][S]. When you are using the Terminal program you will find that the [Menu] key brings up a screen for setting various features related to printing, on the second page are items that set up the serial port. As explained below, you shouldn't need to change these settings. Only do so if the software you are using cannot be configured to match the Notepad settings.

Without getting into long discussions about serial connections (which can be a very complicated subject) it is only really necessary for you to know that there are certain values associated with the serial port that must be set correctly before you can get two computers to communicate. Both ends should be set to the same values.

The **Baud rate** is just a measure of the speed at which the computers communicate. It can be set to various values such as 300, 1200, 2400, 4800, 9600). For a direct connection it is probably best just to leave it at the 9600 setting that it defaults to.

The other things that can be set that affect the serial port are the number of **Data bits**, the **Parity**, and the number of **Stop bits**. It isn't important to know what these things are - just to ensure that both computers are set to the same values. Data bits should always be set to 8, stop bits should be set to 1 and the Parity should be set to None. The Notepad allows you to change these things if the software at the other end does not present a suitable choice, but almost all terminal software does allow these things to be changed and almost all will choose 9600, 8 data, No parity, 1 Stop bit as the default setting anyway. By the way, if you are using the Terminal program in Windows 3 note that it defaults to a baud rate of 1200 and should be changed to 9600 through the Settings/ Communications... menu entry.

Once you have the machines connected and they are both running terminal software you should find that if you type characters on the Notepad keyboard they appear on the screen of the other computer and vice versa. Each time you connect the Notepad to another computer it would be advisable to start by entering the Notepad's Serial Terminal program ([Function][S]) and just

type a few characters on each keyboard to make sure that transmit and receive are working OK. There is no point in spending a long time trying to transfer files only to find that the fundamental connection that allows characters to be sent in both directions was not working.

Once you have established a sound connection between the two machines you should then be able to transfer files between the two. If you find that typing on one machine does cause something to appear on the other but the characters are just meaningless rubbish then it is probably because one of the baud rate, data bits, stop bits or parity settings are not correctly matched.

Note: The RS232 (Serial) port on the NC 100 uses signals at a higher levels than normally used inside the Notepad. This means that the batteries will drain at a faster rate than normal when making serial transfers. It may be an idea to run the Notepad from the mains adaptor when transferring files.

Choosing the correct transfer method

The Notepad can use two different types of file transfer. There is a very simple form called Simple ASCII file transfer and a more powerful, versatile and reliable method called Xmodem. We suggest you always use Xmodem file transfer whenever possible. Xmodem file transfer breaks up the information to be sent into small packets and sends each with some extra information that the receiving end can use to make sure that no faults were introduced.

Simple ASCII document transfers

The simplest form of file/document transfer is ASCII. This is provided so that people who cannot find software to support Xmodem transfer can still connect their Notepad to other computers. When you ask the Notepad to send a document using Simple ASCII it just sends each character from the document you choose as if you were typing them directly in the serial terminal program. On the computer that is receiving the file you just have to switch its ASCII capture on before starting to send the file. Once the Notepad has finished sending the file you can switch the capture off on the PC and the information that has been sent will be written to a file.

When transferring files from a PC to the Notepad using ASCII transfer you start the receipt of the document on the Notepad. It will wait

indefinitely for the first character to be transmitted (you can always press 〔Stop〕 if you didn't want to transfer a file). As soon as it has received the first character it then allows a maximum of 2.5 seconds for each subsequent character to be received. If a longer delay is encountered then the Notepad assumes that the other end has finished transmission. Stopping transfers in this way means that there is no need for End of File characters to be sent.

To send a file, from the Notepad to a PC, using the simple Send option :

1 Establish the connection.

2 Make sure the receiving end is ready to receive the file. This will usually involve giving some sort of command to initiate an ASCII capture or "download". Because the Notepad can have longer filenames than on PCs (and use a bigger range of characters) you may have to change the name you give the file to be received at the PC end.

3 In the Notepad switch to the List Stored documents screen (〔Function〕〔L₃〕 is a quick way to switch to this screen).

4 Position the cursor over the document to send.

5 Press the 〔Menu〕 key and select the **T>>Transfer** option. In the menu that appears press 〔S〕 to send the document using simple Send

6 Once the Notepad has sent the document it will tell you how many characters were sent and will invite you to "Press **Stop** to exit". Doing so will take you back to the list of stored documents

7 At the receiving end stop the file transfer. In some software this may be as easy as just pressing the Esc key, while in others you may have to give a command or select a menu entry to do this.

To receive a file, into the Notepad from a PC, using simple Receive option:

1 Establish the connection

2 You must start the reception of the file on the Notepad before starting to send it from the other computer. Switch to the List Stored documents screen (〔Function〕〔L₃〕 is a quick way to switch to this screen).

3   Press the 📖 key and select the **T>>Transfer** option. In the menu that appears press 🔲 to receive the document using Simple transfer.

4   You will then be asked to give a name for the document that is about to be received. You could just type the same name as used on the PC (8 characters, a full stop, then 3 characters)

5   Now you can start the transmission of the file (document) from the PC. The way this is done will differ from software to software but it will often be described as "Send Text/ASCII file" or perhaps "ASCII upload".

6   Once the Notepad **has received** the document (when there was a gap greater than 2.5 seconds in transmission) it will tell you how many characters were sent and will invite you to "**Press Stop** to exit". Doing so will take you back to the list of stored documents.

XModem file transfers

You should always choose to use Xmodem file transfers in preference to the simple Send and Receive options. Xmodem is a far more reliable method to use and is supported by virtually every piece of communication software you might use.

Note that the Xmodem transfer in the Notepad is 'Xmodem/Checksum' rather than "Xmodem/CRC". This older method has been chosen to be as compatible with as many pieces of software as possible (all Xmodem/CRC should switch down to using Xmodem/Checksum). A side effect of this when transferring files to software that uses Xmodem/CRC is that it can take a few seconds to start while the software decides to switch back to the checksum method.

**To send a file, from the Notepad to a PC,
using Xmodem send option**

1   Establish the connection

2   In the Notepad switch to the List Stored documents screen (⟨Function⟩⟨L₃⟩ is a quick way to switch to this screen).

3   Position the cursor over the document to send.

4   Press ⌨ and select the **T>>Transfer** option then press ⌧ to send the document using Xmodem transfer. Note that you start the send operation before starting the receive operation at the other computer. This is different to the order when using the simple Send.

5   Once you have started the send of the file you must instruct the other end to start receiving it. This will depend on the software you use but you may find it called "Xmodem download". You will be asked to give a filename that the information will be stored in on that computer.

6   Once you start the Xmodem receive on the other computer the information will be transferred. You will see a counter on the Notepad showing you how many characters it has sent.

7   The Notepad will eventually finish sending all the characters and will invite you to press any key to continue. At the PC end it will automatically finish the transfer and write the data into the file whose name you gave earlier.

Note that when the Notepad tells you how many characters were sent it is often a number larger than the actual number of characters in the document. The reason for this is that Xmodem always rounds up the number of characters to send to a multiple of 128.

It is possible to perform the transfer by starting the PC receiving before the Notepad starts sending but there will be a few second delay while the two machines synchronise.

To receive a file, into the Notepad from a PC, using Xmodem receive option:

1   Establish the connection.

2   Switch to the Notepad's List stored documents screen (⟦Function⟧⟦L₃⟧ is a quick way to switch to this screen).

3   Press ⌨ and then select the **T>>Transfer** option. In the menu that appears press the ⟦R⟧ key.

4   Type in the name that you want to store the received document in but do not press ⏎ yet because you must start the Xmodem send on the PC first.

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5   At the PC end give the command to the software to start sending the chosen file. This may be called something like "Xmodem upload".

6   Once the PC has started to send the file hit ⏎ on the Notepad to start receiving the file.

8   When the transfer is complete the Notepad will invite you to "Press **Stop** to exit".

Sending and receiving the contents of the Address Book

The previous description has explained how to send and receive documents using the Notepad. It is also possible to send and receive the contents of the Address Book and the method used is almost the same as for document transfers.

To send the contents of your address book you must go to the Notepad's System configuration menu:

```
┌──────────────────────────────────────────────────────────────────────┐
│ Amstrad NC100 System Configuration    Use ↑ ↓ ← and →, Stop to Finish  │
│ Power off delay (mins, 0=Never)        (5)                             │
│ Preserve context during power off      (No)                           │
│ Document date display                  (Not shown)                    │
│ Document transfer port and Format      (Serial/Protext)               │
│ Sticky shift keys?                     (No)                           │
│ Time display Format                    (24 hour)                      │
│ Set time and date                                                     │
└──────────────────────────────────────────────────────────────────────┘
```
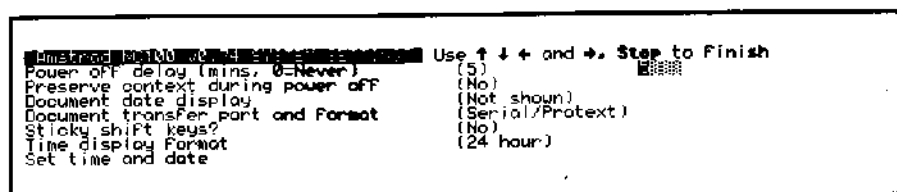
This is accessed by pressing ⌨ on the first screen of the Notepad. Find the option that says 'Document date/size display" and set it to something other than 'Not shown'. Now, when you return to the List stored documents you fill find that a new entry "ADDRESS BOOK" has appeared. This is special document that holds the Address Book information but it is not possible to edit it because the information is stored in a special format.

This file can be sent from the Notepad using the simple or Xmodem send options as described above.

To receive the Address Book contents from a PC into the Notepad there are special entries in the transfer menu that are accessed by pressing ⌨ at the list stored documents screen. However, once these options have been chosen the method of use is exactly as described above for receiving documents.

Stored Commands

When typing documents, any line that starts with the right angle bracket character (>) in column one is not just stored as another line of text in your document. Instead, it is interpreted as a special command to the word processor. These commands are called "Stored commands" because they are stored away in each document that they are used in but are not printed.

Apart from rulers, the angle bracket is always followed by a two letter code that identifies the command. These command names are chosen to try and help you remember them so, for example, HE is HEader and FO is FOoter.

You may not realise this but you may already be familiar with "stored commands". If you have changed the layout of your text using a different ruler, or if you have added headers or footers from the Menu option (which just insert an >HE or >FO stored command) then you have already used stored commands.

There are two types of stored command, those that are acted upon immediately and those that only have any effect when the document is printed.
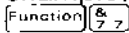
An example of an immediate stored command is >PA. This is the PAge break command and forces the next line that is typed to start on a new page. Normally, when you type, if you haven't changed the default settings, you will find that you can type 60 lines before the line that marks the end of a page appears. However, if you start a new line with >PA and then press ⏎ you will find that the current page is finished and the cursor starts at the top of a new page after the page break bar.

An example of a stored command that is only acted upon when the document is printed is the >PO (Print Odd pages) command. This tells the word processor to only print the odd pages of your document and is useful if you want to print on both sides of some paper to produce a book or magazine. You print the odd pages on one side of the paper and then turn it over and run it through the printer again printing the even pages on the other side (using the >PE command). Because it is only acted on at print time, entering >PO on a new line has no obvious effect while you are still writing a document in the word processor.

Because stored commands are acted upon, rather than forming part of your document, the word processor does not count any line that starts with an angle bracket when it is calculating where one page ends and the next begins. Also, even if you have got bold, italic or underline showing on screen, lines starting with ">" are not affected by these things.

If you start a line with **the angle** bracket character the word processor checks to see if it is an immediate command that it should act upon when you press ⏎. If it recognises it as such then the correct action is taken and the line is also stored in the document. Otherwise it just enters the line into the document and no further action is taken at this time. When you subsequently come to print the document a second check is made for any stored commands. If, at this time a line is found that starts with an angle bracket but the two letters that follow are not a recognised command then it will stop printing and display the message:

```
Unknown stored command
Press a key to continue ...
```

A number of the stored commands just provide another way of setting the same options as found in some of the menus. When a stored command is used it over-rides the setting in a menu. For example, if you have set a page length of 66 in the Layout menu `Function`|`& 7` and then include a >PL 35 command in your document, the word processor will assume a page length of 35 not 66.

There are 60 stored commands that the word processor recognises. They generally fall into one of five categories.

There are those that are used for defining the page **layout** - setting the various margins, length of page, etc.

A collection of the commands are used for page **formatting** - adding header and footer text to each page when a document is printed, controlling the printing of odd/even pages, etc.

There are also commands that affect the operation of the **printer**. Allowing printer control codes to be sent directly to the printer and affecting whether micro spacing is used for example.

There are some **miscellaneous** commands. For example, you can use a stored command to add comments to your documents to

describe the contents for your own future reference but this will not print.

Perhaps the most powerful, but also the most difficult to understand stored commands are those that are used for **mail merge**. Mail merge is the name given to the process where you have a standard letter that is printed several times inserting a different name in certain places each time it is printed. If you have ever received a letter saying "Dear Mr *your name*, you could win £100,000. All you have to do Mr. *your name* is ...." then you have received a mail merged letter.

The following is an alphabetic list of all the stored commands with a short description of their function. This should be used when you just want a quick reminder of the command to use. Following this is a more detailed description of each command in sections divided as described above.

The list may look a bit daunting at first but do bear in mind that a lot of the commands are used for the complex subject of mail merge. You don't need worry about these unless you actually intend to use the feature.

Command	Name	Type	Immediate
AV	Ask for Variable	Mail merge	No
BM	Bottom Margin	Layout	Yes
CE	CEntre	Formatting	Yes
CF	Close File	Mail merge	No
CO	COmment	Miscellaneous	Yes
CP	Continuous Printing	Formatting	No
CS	Clear Screen	Miscellaneous	No
CW	define Character Width	Printer	No
DF	Define data File	Mail merge	No
DM	Display Message	Miscellaneous	No
EA	End printing At page	Formatting	No
EF	Even page Footer	Formatting	No
EH	Even page Header	Formatting	No
EI	End If	Mail merge	No
EL	Else	Mail merge	No
EM	Even side Margin	Layout	No
EP	Even Page throw	Formatting	No
FF	Form Feed codes	Formatting	No
FM	Footer Margin	Layout	Yes

FO	Footer	Formatting	No
FP	Format whilst Printing	Formatting	No
HE	Header	Formatting	No
HM	Header Margin	Layout	Yes
ID	If Defined	Mail merge	No
IE	If Exhausted	Mail merge	No
IF	If	Mail merge	No
IN	Insert	Miscellaneous	No
IU	If Undefined	Mail merge	No
LS	Line Spacing	Formatting	No
MC	Microspace Code	Printer	No
MS	MicroSpacing	Printer	No
NC	Number of Copies	Formatting	No
NP	New Page after print	Formatting	No
OC	Output Code to printer	Printer	No
OF	Odd page Footer	Formatting	No
OH	Odd page Header	Formatting	No
OM	Odd side Margin	Layout	No
OP	Odd Page throw	Formatting	No
PA	PAge throw	Formatting	No
PE	Print Even pages	Formatting	No
PL	Page Length	Layout	Yes
PN	Page Number	Formatting	Yes
PO	Print Odd pages	Formatting	No
PP	Proportional Printing	Printer	No
RJ	Right Justification	Formatting	No
RP	RePeat	Mail merge	No
RU	Read variable Unconditional	Mail merge	No
RV	Read Variable	Mail merge	No
SA	Start At page	Formatting	No
SK	SKip	Mail merge	No
SM	Side Margin	Layout	No
ST	STop printing	Miscellaneous	No
SV	Set Variable	Mail merge	No
TM	Top Margin	Layout	Yes
UN	UNtil	Mail merge	No
WC	Write file Close	Mail merge	No
WF	Write File	Mail merge	No
WM	Write Message	Mail merge	No
WT	WaiT and display	Miscellaneous	No
ZM	Zero Margins	Layout	Yes

The following pages contain a more detailed description of each command listed above. The commands are grouped together according to the type of the command. Beneath the name of each command is a line described as "Syntax:". This shows exactly how you use the command in a document. For example, the syntax of the Page Length (PL) command is shown as:

Syntax: >PL *number*

The word *number* in italics means that whenever you use the PL command it should be followed by a number (not just the word number). In this case the number you give is the number of lines per page that you would like to use. To help you understand the syntax of the command, most descriptions include at least one example. An example of the PL command might be:

>PL 72

which tells the word processor that the paper you are going to print on has 72 lines.

Page Layout commands

Most of these commands duplicate the function of items in the Layout menu that is accessed by pressing [Function] and [& 7] while editing a document. Those layout menu entries apply to the current document and all subsequent documents that you write until you change the settings. The stored commands can be used to over-ride the settings for just one special document (for example, if you want to quickly print some labels but leave the [Function][& 7] settings at their normal values).

BM Bottom Margin
Syntax: >BM *number*

The BM command is used to specify a value for the bottom margin which is the number of blank lines left at the bottom of each page after all the text (and possibly footer) have been printed. If you used the command:

>BM 3

The word processor would know that it must not print on the last three lines of the page. The reason you specify a bottom margin is because most printers cannot print right to the bottom of a page.

The printer usually loses grip on the piece of paper about 3 lines from the end of the page. Some laser printers are able to print right down to the very last line of a piece of paper but even there it is usually better to leave a margin at the bottom of the page as it looks more professional. If no BM command is used a value of 3 is assumed.

EM Even side Margin
Syntax: >EM *number*

The Even side margin **command is followed** by a number which tells the word processor how many characters from the left edge of the page it should start printing the even numbered pages in your document. You may notice that there is a SM command available which defines the Side Margin for every page. The EM and OM commands allow different side margins to be defined for left and right pages while the SM command applies to all pages. You would use the SM command when every page of your document is identical (for example a memo or a letter). However, if you were writing a book it is usual for the right hand, odd numbered, pages to have a larger side margin than the left pages. This is because the book is bound together at the left hand edge of the right pages. If you were writing a book you might include the following two lines at the top of the document:

```
>EM 8
>OM 12
```

This would mean that printing on the even numbered, left hand pages would start 8 characters in from the edge of the paper while the printing of the odd numbered left hand pages would start at 12 characters in from the edge. This would allow an extra 4 character margin on the right hand pages to allow for the book binding. A value of 5 is assumed if no actual >EM command is used.

FM Footer Margin
Syntax: >FM *number*

The FM command is **followed by a number** which defines how many lines at the bottom of a page should be reserved for printing the footer text in. This area is positioned after the main body of text on the page but before the bottom margin (the area which cannot be printed on -see the BM command). The Footer Margin area is only used if footers are defined using the FO, EF or OF commands.

The value used if no FM command is used is 2 if footers are enabled, otherwise it is zero.

HM Header Margin
Syntax: >HM number

The HM command is similar to the FM command except that it is used to specify the number of lines below the top margin (see TM command) but above the main page body that are reserved for printing the header text in. If no header is defined then a value of zero is used for HM otherwise it will assume the value 2. An example HM command might be:

>HM 3

This would reserve three lines at the top of the page (below the top margin) where header text would be printed.

OM Odd side Margin
Syntax: >OM number

The OM command is very similar to the EM command but acts on odd pages rather than even pages. For a description and example see the EM command. If no OM command is used then a default value of 5 is used

PL Page Length
Syntax >PL number

The PL command is used to tell the word processor how long the paper you are going to print on is. Most printers print six lines to the inch so by measuring a piece of paper you can work out how many lines long it will be. A4 paper is 72 lines long. Continuous, 11" paper is 66 lines long. A 1.5' label is 9 lines long and a 2" label is 12 lines long.

The word processor takes the value you give for page length and subtracts from it the value of top and bottom margins (BM and TM command these are the areas that cannot be printed on because the printer cannot hold the stationery. If headers and footers are being used then the word processor further subtracts the FM and HM values The amount left is the number of lines in the main body of the page that you can enter text on.

When printing on continuous stationary such as fan fold 11" paper or labels the top and bottom margins may be set to zero and if no

headers and footers are used then the number of lines that the word processor will allow you to enter on each page is the same as the page length. Another way of putting this is to say that the actual number of lines that can be used on a page are:

PL - TM - BM (- HM if headers on) (- FM if footers on)

An example of the PL command might be:

>PL 9

This would tell the word processor that there were only 9 lines to each page (1.5" labels).

SM Side Margin
Syntax: >SM *number*

The SM command is **followed by a** number that tells the **word** processor how many characters from the left hand edge of the page it should start printing at. The SM command applies to all pages in a document. If you want to have different values for odd and even pages then you should use the EM and OM commands instead. If you do not give an SM command then a value of 5 is used.

TM Top Margin
Syntax: >TM *number*

The Top Margin is the **number of lines** at the top of a page **where** the word processor will not attempt to print. The reason for defining a top margin is that most printers cannot fully grip a piece of paper until it has been fed a few lines into the printer. Most printers will not be able to print on at least the top 3 lines of a page. However, if you use continuous paper (with holes up the edge) then the printer can print on every line so you could set TM to zero. However, documents look more professional if a few lines are left blank at the top and bottom of a page. If no TM command is given a value of 3 is assumed. If you were to use the command:

>TM 6

The word processor would **leave 6 lines** blank at the top of each page.

ZM Zero Margins
Syntax: >ZM

This command sets all margins to be zero. This can be useful if you are using continuous paper and want to print a draft copy of a document without having it correctly spaced out on each page.

Page Formatting commands

Several of these stored commands achieve the same effect as settings in some of the menus. For example, CP, EA, SA achieve similar effects to the settings in the menu you see when you press the ⌨ key at the print document screen. The stored commands only take effect for the document in which they appear while the menu entries apply to all documents until the settings are changed.

CE CEntre
Syntax: >CE *text*

The CE command is followed by text on the same line which will be centred when the document is printed. You may wonder why you would wish to leave centring until the document is printed when you can always achieve the effect using ⌨⌨. Well, the main use is for when the text that may be centred could be of variable length. This will occur when using mail merge and the text to be centred contains a mail merge variable. For example:

>CE Memorandum to &name&

might print as:

Memorandum to Mr. Sugar

CP Continuous Printing
Syntax: >CP ON
    or: >CP OFF

The CP command is always followed by the word ON or OFF and switches continuous printing on or off. When Continuous printing is on the word processor assumes that your printer is loaded with continuous (fan fold) paper that has tractor holes up the edges. It then sends every page of the document to be printed at once without a break. When CP is switched to Off, the word processor assumes you are printing on separate, single sheets of paper so it pauses before each page is printed and allows you to load single

sheets into the printer. Once the paper is in place and the printer is switched on-line you press the Space Bar to print the next page. If you print to a laser printer or other printer that has a sheet feeder you will probably want to tell the word processor that it is using continuous paper by using the CP ON command. The CP command has the same effect as the "Continuous printing?" switch in the print menu (accessed by pressing ⌨ at the print document screen)

EA End printing At page
Syntax: >EA number

This command tells the word processor the number of the last page you want printed. Normally it will print every page up to the last page in the document. The EA command may be used together with the SA command which defines which page to start printing at. For example, say you have a 10 page document and include the commands:

```
>SA 3
>EA 7
```

at the top of the document then, when it is printed, only pages 3 to 7 will be printed. It is also possible to select a range of pages to print using the settings in the print menu but they apply to all documents while the stored commands only apply to the document in which they are used.

EF Even page Footer
Syntax: >EF text
    or: >EFn text

The EF command is used to define a line of text that will be printed within the footer margin area of every even page of a document. The simplest form of commands for putting in footers is the FO command which applies to every page. However, the EF and OF commands allow different footers to be applied to even and odd pages. This would be useful, for example, if you were writing a book and wanted to put the page number at the right hand end on the foot of every right (odd) page and the page number at the left on the foot of every left (even) page. An example of the EF command might be:

```
>EF Page %
>OF                                          Page %
```

Which would result in every even page having the page number on the left and the odd pages having the page number on the right. The "%" symbol has a special meaning in headers and footers. Instead of just printing the symbol it is filled in with the current page number as it is printed.

Once a footer has been defined the word processor will start to reserve the footer margin area for printing the footer in. Before then it would assume the footer margin were zero.

Multiple line even page footers may used. The first line would be defined with the command >EF *text* and subsequent lines would use >EF2 *text*, >EF3 *text* and so on up to >EF9 *text*

EH Even page Header
Syntax: >EH *text*
   or: >EHn *text*

The EH command is very similar to the EF command except that it defines the header for every even page rather than the footer. Just like the EF command, once the EH command has been given the word processor will start to reserve the header margin area for printing the header text in. An example of the EH command might be to put the title of a book on the top of every left hand page. At the same time you might want to put the chapter title at the top of every right hand (odd) page:

```
>EH Fly Fishing by J R Hartley
>OH                                          Tying flies
```

Once again, multiple line even page headers may be created by following the >EH command by a number between 2 and 9 to define the 2nd, 3rd, 4th.. 9th line of even header. In fact, the EH command (as with all header and footer commands) can be combined with the commands that apply to all pages to create headers where part of the header is common to all pages and part of it only occurs on odd or even pages. The following example may make this a little clearer:

```
>HE First line of header on every page
>EH2 Second line of header on even pages
>OH2 Second line of header on odd pages
>HE3 Third line of header on every page
>FO This is the first line of footer on all pages
```

```
>EF2 This the second line of footer on even pages
>OF2 This the second line of footer on odd pages
```

EP Even Page throw

Syntax: >EP
      or: >EP *number*

The EP command is like the PA command that forces a new page to be started. However, the EP command has a further function in that it will always arrange for the next page to be an even numbered page.

So, if the current page has an odd number it will just end it at the point the EP command is included and the next page will be the next even numbered page. However, if the current page were even numbered then, not only would it be ended, a whole, blank, odd numbered page would be inserted so that text would continue on the next even numbered page. This forces the next line to start at the top of a left hand (even numbered) page.

If the EP command is followed by a number then the EP command will only have any effect if the number of blank lines remaining on the current page is less than or equal to the given number. So, for example, the command:

```
>EP 10
```

will force the next line to start at the top of an even numbered page if there are 10 or less lines remaining on the current page.

FF Form Feed codes

Syntax: >FF ON
      or: >FF OFF

The FF command is always followed by the word ON or OFF. It tells the word processor whether or not you would like it to send a form feed character at the end of every page that is printed. The form feed character (number 12) is a special character used by some printers to tell them to finish printing the current page and move to the start of the next page. It may be necessary with some laser printers to switch the FF command ON so that each page is followed by a character 12. If no FF command is used it is switched Off and no form feed characters are sent. After the command:

```
>FF ON
```

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the word processor will send a form feed character at the end of each page. This has the same effect as the "Form feeds enabled?" setting in the print menu.

FO FOoter
Syntax: >FO *text*
or: >FO*n text*
or: >FO OFF
or: >FO ON

The FO command is used to tell the word processor what text you would like to have printed on the foot of every page. Once an FO command is used the footer margin area will be reserved for printing the footer text in and the footer will be printed on the bottom line of the footer margin area.

Multiple line footers can be used by following the first >FO line with subsequent >FO commands where the letters >FO are followed by a single digit between 2 and 9.

Once a footer has been defined it will appear at the foot of every page printed. However, you can disable footers on any pages you choose by using the >FO command followed by the word OFF. Any subsequent pages will not have a footer printed. If, later in the document, the command >FO On is used the printing of footers will be resumed.

If you just use the command >FO ON without having previously defined a footer then a centralised page number will be printed on the foot of every page.

If you want to include page numbers within a footer just put a "%" sign where you would like the number to be printed. It will be filled in with the correct value when the document is printed. If you want to include the "%" character in a footer use "%%" to print a single percent symbol.

For an example of the various header and footer commands see the description of the EF and EH commands.

FP Format whilst Printing

Syntax: >FP ON
  or: >FP OFF

The FP command is followed by the word ON or OFF and specifies whether the document should be reformatted while it is being printed. If no FP command is used then it is assumed to be OFF. The FP command is used in conjunction with the RJ command. The RJ command switches right justification on or off in the section of document following it. If you have sections of the document where RJ is switched on and others where it is switched off then you should also use the FP ON command to ensure that the justified sections are properly formatted prior to printing.

HE Header

Syntax: >HE *text*
  or: >HE*n* *text*
  or: >HE ON
  or: >HE OFF

The HE command is used in exactly the same way as the FO command except that it defines and controls the printing of a header text in the header margin area at the top of each page. See the description of FO for more details.

LS Line Spacing

Syntax: >LS *number*

The LS command defines the line spacing to be used when a document is printed. It has no effect on what you see on screen while editing. Normally line spacing is set to one so that lines are printed as you see then while editing. However, for manuscripts and scientific reports it is often necessary to have the lines double spaced when printed and this can be achieved with the command:

>LS 2

The LS command will also accept half line feed values that end in .5 (1.5, 2.5, etc.). But only some printers will be able to space text in half line spacing values. The LS command has the same function as the "Line spacing" setting in the Layout menu that is accessed by pressing ⌊⌋ while holding down ⌊⌋ when typing a document.

NC Number of Copies
Syntax: >NC *number*

This command specifies how many copies of the document should be printed. If no NC command is used the value of one is assumed. A command such as:

```
>NC 3
```

would result in three copies of a document being printed.

NP New Page after print
Syntax: >NP ON
     or: >NP OFF

The NP command is used to switch on or off the printing of a blank page after a whole document has been printed. If no NP command is used the feature is switched OFF. The NP command is particularly useful when printing on continuous, fan-fold, paper as it moves the printer to the top of the next blank page after a document has been printed. This allows the document that has just been printed to be ripped off at the next line of perforations. The NP command has the same effect as the "New page after print?" setting in the print document menu.

OF Odd page Footer
Syntax: >OF *text*
     or: >OFn *text*

For a full description see the EF command. The OF command works in just the same way as the Even page Footer command except that it defines the footer text for Odd (right hand) pages. A typical OF command might be:

```
>OF This is printed at the foot of all odd pages
```

Just like the other header and footer commands the OF command may be followed immediately by a digit 2 to 9 to define the 2nd to 9th line of footer text.

OH Odd page Header

Syntax: >OH *text*

    or: >OHn *text*

The OH command is similar to the EH command except that it defines the header to be used on odd numbered, right hand, pages.

OP Odd Page throw

Syntax: >OP

    or: >OP *number*

The Odd Page throw command will cause the next line printed to start at the top of an odd page. If the current page is even numbered it will be at the start of the very next page. If the current page is already odd numbered then a blank, even numbered, page will be inserted so that the next line is at the start of an odd page. This would often be used when writing a book when you want to ensure that each chapter starts on a right hand page. If the OP command is followed by a number it will only take effect if the current page has that number (or fewer) blank lines remaining.

PA PAge throw

Syntax: >PA

    or: >PA *number*

The PAge throw command will cause the current page to be ended and the next line of text will start printing at the top of the next page. If the PA command is followed by a number then it will only take effect if that number of blank lines or fewer remain on the current page. You can quickly insert a PA command into a document by pressing the P key while holding down Control.

PE Print Even pages

Syntax: >PE ON

    or: >PE OFF

The Print Even pages command, PE, when followed by the word ON will cause only the even pages of the current document to be printed. If the command >PE OFF is used then all pages will be printed.

The reason for only printing even pages is so that a book or magazine can be printed on both sides of some sheets of paper.

First the odd pages are printed. Then the paper is turned over and the even pages are printed on the other side of the same paper.

PN Page Number
Syntax: >PN number

The number following the PN command sets the number that the current page will have, subsequent pages will be renumbered accordingly. For example, if the command:

`>PN 10`

is used on a page then that page will be page 10 and the following page will be 11 and so on. The PN command is useful when writing separate chapters of a book and you want to ensure that the next chapter's page numbering continues on after the last page of the previous chapter. Page numbers can be made to appear on the printed pages by including the % symbol in either a header of footer definition.

PO Print Odd pages
Syntax: >PO ON
　　　or: >PO OFF

When the PO ON command is used only the odd pages of a document will be printed. Using the command PO OFF will return things to normal so that all pages are printed.

As described under the PE command. The PE and PO commands are used together to first print the odd and then the even pages of a document on either side of the paper to be printed.

RJ Right Justification
Syntax: >RJ ON
　　　or: >RJ OFF

The RJ command can be used to switch on or off the right justification of text in specific areas of a document. The lines following an RJ ON command will be justified while those following an RJ OFF command will have a ragged right margin. For this command to operate correctly the document should be reformatted during printing. This is accomplished by using the FP ON command. The setting of right justification for a whole document can be switched on or off using ⌷⌷ or setting the

option in the configuration ~~menu~~ ~~that is~~ accessed by pressing [Function][E/3] while editing.

SA Start At page
Syntax: >SA *number*

The SA command is used to define which page number printing should start at. Together with the EA command this allows only specified sections of a document to be printed. See the description of EA for more details.

Printer commands

CW define Character Width
Syntax: >CW *number*

This command is used to set the character width for micro spacing. Possible examples are:

>CW 10	(elite characters)
>CW 7	(condensed)
>CW 14	(condensed enlarged)

MC Micro space Code
Syntax: >MC *code code...*

This command defines the sequence of codes that will move the print head by the smallest possible amount. The word processor uses this to evenly space the words in a line of justified text. A typical example use of the command might be:

>MC 27 "L" 1 0 0

Which will mean that every time the word processor wants to move the print head by the smallest possible amount it will send the above sequence. The actual sequence of codes used is dependent on the printer being used.

MS micro spacing
Syntax: >MS ON
    or: >MS OFF

The MS command turns micro spacing on or off. When micro spacing is on the word processor will evenly distribute the extra space on each line that is justified. Normally it tries to distribute extra, whole, spaces along the line to perform the justification but

micro spacing allows it to properly divide the extra space between every word and leads to a more professional looking result.

However, the ability to use micro spacing is dependent on the printer that you use and it may be necessary to give the correct CW and MC commands before it can be used successfully. For some printers you only need as MS ON command but this all depends on which printer you choose in the second screen of the Print document menu.

OC Output Code to printer
Syntax: >OC code code...

The OC command is used to output codes to a printer. Normally, when you want to send special codes to a printer you just put a word in bold or italic or whatever and the word processor arranges to send the correct sequence of codes to the selected printer to achieve the effect. However, there may be other effects that a printer can produce by sending it codes. You can use the OC command to put such a sequence of codes in your document. For example, when using an Epson compatible printer:

```
>oc 27, "S", 1
```

will send the codes that switch it into subscript printing while

```
>oc 27, "T"
```

will cancel the effect. See your printer manual for a list of the control codes that it understands.

PP Proportional Printing
Syntax: >PP ON
    or: >PP OFF

The PP command switches proportional printing on or off. Normally it is off if no PP command has been used. When PP is switched on the word processor no longer assumes that all characters are the same width when printed. Instead it will use its knowledge of the width of individual characters to produce a better justified appearance. For this to work the printer should be sent a code to switch it into a proportional font. This can be achieved by using the style menu "P - Proportional" entry to put the necessary code in your document. A quicker way of entering the code is to press ⌜Control⌝⌜x⌝ followed by ⌜P x⌝.

Miscellaneous commands

CO COmment
Syntax: >CO *text*
    or: >>> *text*

This command can be followed by any text so that it appears in the document but will not appear when printed. This can be used to add a descriptive reminder at the start of a document to remind you later what a document contains. It can also be used to include annotations. For example:

```
>CO This is chapters 2 and 3 of my book on quantum mechanics
>CO Draft number 3   - 11th March 1992
```

Or,

```
>>> Must send memo to Mr. S about.the carrying case
```

CS Clear Screen
Syntax: >CS *message*

The CS command will be interpreted when you come to print a document. It will cause the screen to be cleared and then any text on the CS command line will be displayed on the screen. The CS command would normally be used when mail merging to clear the screen and display an explanatory message about the data that is being asked for by subsequent AV commands. The CS command could be used more generally to print on the screen a description of the document that is being printed. For example:

>CS Printing the second part of the stored command chapter

DM Display Message
Syntax: >DM *message*

The message on the line following DM is printed during printing. Several DM commands might be used after a CS command to display a multiple line message on screen during printing.

IN Insert
Syntax: >IN *document_name*

The Insert command is very powerful. For example, if you write a book (or even a single chapter) in several sections, each contained in a separate document you can produce a master document that

just includes a number of >IN commands to print all the various bits together. For example:

```
>CS Printing the whole book
>IN "Stored cmds"
>IN "title page"
>IN "contents"
>IN "Chapter 1"
>IN "Chapter 2"
>IN "Appendix"
>IN "Index"
```

The advantage of printing a book in this way is that the page numbering, headers, footers and margins defined in the first document will apply through the book unless over-ruled by a subsequent stored command.

The IN command could also be used to build a document from standard paragraphs. You could keep each standard paragraph in a separate document and then build a final document by just using a few IN commands. For example:

```
Dear Mr Smith
>IN "thank you"
>IN "widget info"
>IN "contact us"
Yours sincerely,

Mr Bloggs
```

ST STop
Syntax: >ST message

The ST command causes printing to stop as soon as it is encountered. If a message is included on the >ST command line then that will be displayed on the screen. The ST command would usually be used when using the conditional printing facility provided by mail merge commands.

WT WaiT and display
Syntax: >WT message

The WT command causes printing to be stopped temporarily and any message included on the WT command line will be displayed

on the screen. Printing will resume when any key is pressed. An example of this might be:

```
>WT Make sure printer is loaded with 1.5" labels...
```

This would be placed right at the start of a document. When the document was printed the message would be displayed allowing the user to put the right sort of paper into the printer before printing commences.

Mail merge commands

Mail merge is an extremely powerful feature of the word processor but unfortunately this inevitably leads to a certain amount of complication. The following is just a short description of each of the mail merge stored commands. Following this is a description of the basics of mail merging but in a book this size it is difficult to include every aspect of such a large subject.

AV Ask for Variable
Syntax: AV *string identifier number*...

This is used during mail merging and causes the word processor to stop while the document is being printed and ask for a value to be typed in which is then given to a variable.

The meaning of the various parts of the command syntax are: *string* is the prompt displayed on the screen, *identifier* is the name of a variable into which the entered value will be stored and *number* is the maximum length of the input that will be expected.

An example might be:

```
>AV "Enter today's date", date
```

or

```
>AV "Type an invoice number", invnum, 6
```

This command would stop and print the text in quotes and then wait for the user to type in a value. Only 6 characters would be allowed.

CF Close File
Syntax: >CF

This closes a document file that was previously opened by the WF command. The ability to write to a document is used when you want to capture what has been output from a mail merging session Into a document as well as just printing it.

DF Define data File document
Syntax: >DF document_name

File is just a boffin word for document. This command is used to tell the word processor which document it should use to read the data for a mail merge operation from. A typical file (document) might include a list of names and addresses which would be used to print multiple copies of the same letter to different people.

EI End If
Syntax: >EI

The EI command is used after a list of commands that will only be executed if the condition in a preceding IF command has been met. There are various forms of IF command - ID, IE, IF and IU. A typical conditional sequence might be:

```
>IF town = "York"
As a resident of York we think you may be particularly
interested to hear of our weekly meeting held at York
Minster.
>EI
```

EL Else
Syntax: >EL

The ELse command is used to end the section of commands and text to be included if an IF condition is met and to start a section of commands and text that will be used if the IF condition was not met. It would finally be terminated with an EI command. For example:

```
>IF telno = ""
As you haven't got a telephone please contact us by post.
>EL
Please call us as soon as possible on 0708 123456
>EI
```

ID If Defined
Syntax: >ID *identifier*

A check is made to see if the variable *identifier* has been defined. Only if it has will the following section up to the next >EL or >EI command be used.

IE If Exhausted
Syntax: >IE

When mail merging data is read from a data file document and is used to fill in the various mail merge variables. Several similar letters may be printed in this way but it may be useful at the end of the print run to perform some other action. This can be achieved using the IE command. The block of text and commands following an IE command up to the next EL or EI will only be performed if the data file is exhausted. Say, for example, that for each letter that was printed you had a variable called "count" recording the number printed. At the end you could include the following:

```
>IE
>CS Mail merge finished. &count& copies printed.
>EI
```

IF If
Syntax: >IF *condition*

If the *condition* given in the IF command is met then the subsequent block of text and commands up to the next EL or EI is used. This is an extremely powerful command and allows many different kinds of conditions to be tested for. See the more detailed description of IF in the chapter on Mail Merge below.

IU If Undefined
Syntax: >IU *identifier*

This tests to see if the variable *identifier* is defined. Only if it is undefined will the following block of text and commands up to the next EL or EI be used.

RP RePeat
Syntax: >RP

The RP command is used to start a block of text and commands that will be used repeatedly. The end of the block is marked by a UN command which also sets a condition that must be met for the

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repetition to cease. The following very simple example will print the numbers 1 to 10:

```
>SV count=1
>RP
&count&
>SV count=count + 1
>UN count > 10
```

RU Read variable Unconditional
Syntax: >RU *identifier, identifier...*

The RU command will read data from the data file document that has been identified by the DF command and assign the data it reads to each identifier listed. The RU command reads unconditionally so that it is normally used with data files where every entry has the same number of fields. An example might be:

```
>RU name, address1, address2, address3, dummy
```

RV Read Variable
Syntax: >RV *identifier identifier...*

The RV command is used to read values from the data file and assign them to the list of variables. RV reads from the data file until it finds an empty field. It then stops reading and assigns a null value to any unfilled variables named on the RV command line.

SK SKip
Syntax: >SK *condition*

If the given condition is true then the printing of the current document is terminated. You could for example read a long data file but only print out letters to people whose name was Smith using:

```
>RV name, addr1, addr2, addr3
>SK name <> "Smith"
 . . . .
```

The "<>" means "not equal".

SV Set Variable
Syntax: >SV *identifier = expression*

The SV command is used to set a variable, *identifier* to be equal to the result of an expression. The expression is formed using the

arithmetic operators +, - , /, *. ('/' means divide and '*' means multiply).

The expression is evaluated in the order that the items in the calculation are encountered. It is not possible to change the precedence of expressions as parentheses cannot be used. If a variable name appears in an expression its contents will be used if it is numeric. Complex expressions can be formed by the use of temporary variables to hold the intermediate result.

```
>SV temp = value1 + value2 + value3
>SV average = temp / 3
```

The above achieves the same effect as the expression:

average = (value1 + value2 + value3) / 3

UN Until
Syntax: >UN *condition*

The UN command is used at the end of a block started with the RP (RePeat) command. All the text and commands between RP and UN will be used repeatedly until the *condition* in the UN command becomes true.

WC Write file Close
Syntax: >WC

The WC command closes a write file that has been opened by the WF command.

WF Write File
Syntax: >WF *document*
    or: >WF ON
    or: >WF OFF

The WF command is used to open a file (document) that will have messages written to it. This allows the output of a mail merge run to be written to a file as well as being printed. The WF command used with either ON or OFF to start or stop the writing of data to a file. A very simple example might be:

```
>WF "Write test"
>WF ON
This is a line of text that will be written to "Write Test"
>WF OFF
```

This line will be printed on the printer.
>WF ON
This is the second line written to the file.
>WC

If you print this document it will create a new document called "Write test" containing two lines of text. The middle line will only be printed on the printer.

WM Write Message
Syntax: >WM *message*

This command is used to write messages to the document file that has been opened using the WF command. The WM command will still write to a file even if the WF OFF command has been used.

Mail merge

Mail merge is, without doubt, the most powerful feature of the word processor built into your Notepad. In its simplest form it will allow you to make a simple template letter and then print multiple copies with different peoples name and addresses on each. This is useful for printing things such as club newsletters.

The actual range of mail merge commands available is quite large and, in effect, forms the basis of a very simple programming language. For example, type the following lines into a new document and then Stop editing and print it. (Don't worry if you don't understand what the commands mean yet)

```
>CS This "program" prints the 7 times table
>WT Hit any key to start...
>SV count = 1
>RP
>SV result = count * 7
>SV result = result[w1]
>SV count = count[w1]
>DM &count& * 7 = &result&
>SV count = count + 1
>UN count = 13
```

That gives you just a taste of what can be achieved with mail merge but let's start at the very beginning and try to understand exactly what mail merge is.

Simple mail merging

n its simplest form mail merge is just the process of taking a document (or file) full of data such as names and addresses and slotting them into a main template letter. For example, suppose you have a document called 'names' that contains the details of the members of your club in the following form (it might be an idea to type this in if you want to follow this chapter by trying the examples):

```
John Smith
27 Acacia Avenue
Surbiton
Surrey
ABC 1HW
```

```
Eric Viking
26 Pownell Road
Mucklethwaite
Lancashire
PO3 9BU

Norman Nobody
1 The Avenue
Dunmow
Essex
GH6 3TU
```

Supposing you want to send each of them a letter to tell them that their subscription to your club is now due. You could write each a separate letter filling in the relevant name and address where appropriate but it would be far easier to get the word processor to do this for you. Consider what the letter would look like if you were writing to John Smith:

```
15th August 1992

Dear John,

I write to remind you that your subscription is now due.
Just to keep our records up to date please confirm your
name and address details are as shown below:

John Smith
27 Acacia Avenue
Surbiton
Surrey
ABC 1HW

Yours sincerely,

Cliff Lawson
```

It is clear that if we want to turn this letter into a template to be used for everyone we must replace all specific references to John Smith with some sort of "place holder" which will be filled in with different details for each different copy of the letter printed. The letter might then become:

```
15th August 1992

Dear &name&,
```

I write to remind you that your subscription is now due. Just to keep our records up to date please can confirm your name and address details are as shown below:

&name&
&addr1&
&addr2&
&addr3&
&postcode&

Yours sincerely,

Cliff Lawson

The "&" is a special indicator to the word processor that the word contained within the "&" symbols is the name of a mail merge variable" which it must fill in when it prints the letter.

So that is our template letter, which can be stored in a document called "template" - type it in now if you like. Now we have to have some means of telling the word processor which document contains the list of names and addresses. We do this by using a DF stored command in the template letter. Add the line:

>DF "names"

to the top of the document.

However, all the DF command does is tell the word processor where the data is being kept. It has no way of knowing that the names and addresses are organised so that there is a single line with the name, 3 with the address, one with the postcode and one blank ne. We must also tell the word processor how to read the data from the data file and which mail merge variables the various items should be stored in. This is achieved using the RV command to read the information from the data file into mail merge variables which can then be inserted into the template letter. Add the following command after the DF command:

>RV name, addr1, addr2, addr3, postcode, dummy

When this line is executed the word processor will read the first line from the data file and assign it to "name". The second line will go nto "addr1" and so on. The reason for having an extra variable called "dummy" is that each address is followed by a blank line to

separate it from the next and so each time that blank line will be read into "dummy" but not used.

You could now try printing the document to a printer from the "Print document" screen. You should get three copies of the letter printed. Each will have a different name and address. While experimenting with mail merge it can be a waste of paper to repeatedly print to a printer. While editing the template you can see what the results of a mail merge will be by printing the document to the screen. Press ⌨ followed by ⌨. There is just one problem, the output races up the screen without you being able to read it. The solution is to use the >WT command in the document to make it wait for a key to be pressed during printing. Put a >WT command into the document on the line after &postcode&. When you print this to the screen it will pause after printing the name and address and wait for you to press a key. Don't forget to remove any >WT commands before finally printing the document to a printer or you may not realise why printing seems to have stopped when the WT command is reached.

More about reading data

There are two commands which can be used to read data from a data file and assign it to mail merge variables. RV is the simpler form of command. It just reads data and assigns it to the named variables until a blank line is read when it stops reading data and sets all the other "unread" variables to be blank. The problem with this is that if we had a shorter address such as:

Tom Brown
Rugby School
Rugby

RU3 8BY

The blank line would cause problems if the RV command were used.

When you print the letter you would get one in which Tom's address was used but his postcode would be missed out because the reading of the file would have finished at the blank line between Rugby and RU3 8BY. The next letter printed would have a name of "RU3 8BY"! This clearly is not what we wanted at all.

If the RV command is changed to RU, which will happily read an entry even if it is blank, then things are restored to normal. You will notice that although the names and addresses file contains a blank line between "Rugby" and "RU3 8BY", when printed this blank does not appear. This is because when a variable appears enclosed in '&' characters it does not print anything if the variable is blank. If you really wanted the blank line you could replace the "&" characters with "!" symbols. A variable name enclosed in "!" will print the contents of that variable even if it is blank.

In the data file it is probably safest to put a single dollar sign on any lines which form part of the data but would otherwise be blank (the line between Rugby and the postcode in this case). The word processor knows that a line with a single dollar character on should be read in as a blank line. Just use completely blank lines between each record (collection of data). In this case you would only have completely blank lines between the postcode of one entry and the next name.

Inputting data when printing

At the moment the template letter has the fixed date in it but we may want to use the same template several times and enter the date just before printing. This can be achieved by removing "15th August 1992" and replacing it with &date&.

Try that now and print the template letter. You will get a message saying "Unknown variable 'date'". We need the word processor to stop and ask for date to be typed in when the template is printed. This is achieved with the AV command which will Ask for a Variable to be typed in. Add a line at the top of the template document:

```
>AV "Type in today's date: ", date
```

If you now print the document you will find that there is just one slight problem with this - you are asked to type in the date for every copy of the letter that is printed. You only want to be asked once at the very start so add the following line before the AV command line:

```
>IU date
```

and add the line:

```
>EI
```

after the AV command line. This will mean that the AV command is only used if the variable "date" is undefined. (This is what IU means - If Undefined). Once you have typed the date in it will be defined on subsequent prints of the letter.

Other ways to set variables

So far we have seen that it is possible to set the contents of a mail merge variable using either the RV/RU commands to read the value from a data file or the AV command to get the user to type in a value when the template is printed. It is also possible to set the contents of a variable directly using the SV command.

Suppose we want to keep a count of how many copies of the letter have been printed and show this at the end of printing. This could be achieved as follows. First, on the line after the AV command that asks for the date add:

```
>SV count = 1
```

This sets a variable called 'count' to be 1 on the first time the document is printed. We know this will only happen on the first occasion because we have already seen that the line within the IU and EI block is only used the once. This SV command shows another feature of the mail merge - variables can contain numbers as well as pieces of text and SV can be used to give a value to a variable (up to now we have only used name, addr1, and so on for storing pieces of text).

After each copy has been printed we must increase the value held in count by one. This is done by including the following command at the end of the document:

```
>SV count = count + 1
```

This means that count should be set to the current value of count plus one. The final thing we need is to arrange for a message to be printed on the screen once the last letter has been printed. We know when the last letter has been printed because the data file will be exhausted. We can test for this condition using the IE command. So, on the line above SV count = count + 1 add the following lines:

```
>IE
>CS Number of copies printed was &count&
>EI
```

The CS command will clear the screen and display the following message. The &count& part of the message will be filled in with the current value held in the count variable. When you print the template, at the very end, you should see the message "Number of copies printed was 4.00". We don't really want the two decimal places to be included in the display of count. This can be achieved by including the following on the line above the CS command:

```
>SV count = count[w1]
```

Splitting data out from a variable

The [w1] is a special command to the word processor which means take only the first "word" contained in count. You might think it odd that we think of count as containing a word when really it holds a number. But the value 4.00 is thought of by the word processor as two words "4" and "00" separated by a full stop. The [w1] at the end of the line takes word 1 from count.

It is possible to split out words from a line of text in a similar way. For example, if the variable "text" was set using:

```
>SV text = "Now is the time for all good men"
```
text[w1] would be "Now",
text[w3] would be "the".
text[w-1] would be "men" (w-1 means the last word)
text[w4:7] would be "time for all good" (words 4 to 7)
text[w7:] would be "good men" (words 7 to the end)

You can also pick out a range of letters, for example text[2:8] would be "ow is t".

You can use this ability to pick out parts of a piece of text within a conditional statement. For example,

```
>IF name[w-1] = "Smith"
```

would only be true if the last word in name (the surname) was Smith.

In our example template we will currently get "Dear John Smith," printed. What we really want is just "Dear John,". You may already

have guessed how we might achieve this. After the >RV command add the line:

```
>SV firstname = name[w1]
```

and then modify the line which says Dear &name&, to read:

```
Dear &firstname&,
```

The complete template should read:

```
>DF names
>RV name, addr1, addr2, addr3, postcode, dummy
>SV firstname = name[w1]
>IU date
>AV "Type in today's date : " date
>SV count = 1
>EI

Dear &firstname&

I write to remind you that you subscription is now due.
Just tokeep our records up to date please can confirm your
name andaddress details are as shown below:

&name&
&addr1&
&addr2&
&addr3&
&postcode&

Yours sincerely,

Cliff Lawson

>IE
>SV count = count[w1]
>CS Number of copies printed was &count&
>EI
>SV count = count + 1
```

Using the IF command

As has already been shown, you can arrange for selected pieces of text and selected stored commands to be used by including them in a conditional block that starts with one of the IF commands. You can use ID to test if a variable has been defined. IU will test if

a variable is undefined. The commands and text following IE will only be used if the data file is exhausted. However, most conditional tests are made using the general IF command followed by a condition. If the condition is met then the following lines are used. There are various comparisons that can be used in an IF command, they are as follows:

Comparison	Meaning	Example
=	equal to	>IF name = "John"
<>	not equal to	>IF (total + 3) <> 5
<	less than	>IF count < 10
<=	less than or equal	>IF vat <= 17.5
>	Greater than	>IF age > 18
>=	greater than or equal	>IF height > 5
IN	is contained in	>IF "Smi" IN name
NOTIN	is not contained in	>IF "081" NOTIN num

The condition can include expressions similar to those that might be used in an SV command. For example:

```
>IF price + delivery + vat > 200
```

Adding variables

When the addition operator is used to add to variables together, the word processor checks to see if they are both numbers. If they are, then the addition is done numerically, otherwise one piece of text is just added onto the end of another. The following examples may illustrate this:

```
>SV name1="Cliff "
>SV name2="Lawson"
>SV num1="37"
>SV num2="53"
name1 + name2 = "Cliff Lawson"
name1 + num1 = "Cliff 37"
num1 + num2 = "90"
num2 + name2 = "53 Lawson"
```

Using names and addresses from the Address Book

As you may already have a list of names and addresses entered into the address book section of your Notepad you may be wondering if you can use them in the data file for a mail merge operation. The answer is yes but because they are stored in a special way within the address book you must extract them into a new document before they can be used. The way to do this is to start a new document (call it "Addresses" maybe). Hit ⏎ so that the "Start typing new text here" message disappears, then press ⌈Function⌉⌈□⌉ to switch to the address book function. Use the ⌈←⌉⌈→⌉ keys to browse through your addresses until you find the first one that you want to use for mail merging. Now press ⌈□⌉ to transfer that into your document. Repeat this process for each entry you want to add. Now make sure that each has the same number of lines and that there is a blank line after each. You may want to delete some of the lines from each one, for example, remove the line that has the fax number on. A quick way to delete a whole line in the word processor is to press ⌈Control⌉⌈□⌉ while the cursor is on the line.

Mail merge without a data file

The above description of mail merge has shown the way it is used with two files, one full of names and addresses and the other a template letter with sections to be filled in. There is a second general use for the mail merge feature and this is to construct just a template which, when printed, asks you to input various pieces of information and just fills them in immediately before printing. The obvious example of this is printing invoices. The following shows an example of this:

```
AV "Enter today's date : ", date
>AV "Enter current VAT rate % : ", vatrate
>SV vatrate = vatrate / 100
>AV "Type invoice number : ", invnum
>SV gnet=0 gvat=0 gtotinc=0
                        INVOICE

Invoice number: &invnum&                    Date: &date&

Description  Retail  Quant   Disc  Total  Net   VAT    TOTAL
```

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```
>RP
>AV "Description of goods? " descrip 12
>AV "Retail price? " ret "Quantity?" quant
>AV "Discount % ?" disc
>IF disc=""
>SV disc = 0
>EI
>SV totret=ret * quant     off=totret/100*disc
>SV net=totret-off     vat=net*vatrate
>SV totinc=net+vat     gnet=gnet+net     gvat=gvat+vat
>SV gtotinc=gtotinc+totinc
>----------------.----.-------.------.--------.----------.--------.-R
&descrip& &ret& &quant& &disc& &totret& &net& &vat& &totinc&
>AV "Another entry? Y/N ", yeno
>UN yeno[1]"Y"

                         ----------------------------
                         TOTALS &gnet& &gvat& &gtotinc&
                         ----------------------------

>ST
```

The first few lines just input some necessary information to be printed at the top of the invoice. The VAT rate that is input is divided by 100 to convert it from a percentage to a fraction.

The variables gnet, gvat and gtotinc will be used to hold the global totals of nett price, amount of vat and total price including VAT. They are set to zero at the start.

The next few lines will actually be printed at the top of an invoice. Then everything between the RP and subsequent UN line are repeated for each line of the document until you enter something other than Yes to the "Another entry?" question.

For each line the mail merge program asks you to input a description, price, quantity and discount. A special check is made to see if ⏎ was pressed when discount was asked for and, if so, the variable disc is set to zero. The next couple of lines do all the necessary calculations, adding VAT and reducing by any discount. The totals for this line are then added into the global totals.

The next line defines a ruler with decimal tabs so that all the numbers line up and the following line actually prints the information into the invoice.

BBC BASIC

Your Notepad contains a powerful BASIC interpreter that can be used to write your own programs. BASIC is the most popular programming language for beginners to learn. In fact, the name BASIC is short for Beginners All-purpose Symbolic Instruction Code because it is designed with beginners in mind. Symbolic Instruction Code is just a technical way of saying "programming language". The version of BASIC built into the Notepad is compatible with BBC BASIC - the version that is taught in most schools and that is used on many other computers.

When you are using the Notepad you can switch to using BASIC at any time by holding down the [Function] key and pressing [B]. To leave BASIC when you have finished you type the command *QUIT. Programs are not saved automatically so you MUST use the SAVE command before leaving BASIC to preserve any program you have been working on.

You may like to set the 'Preserve context during power off' switch in the System Settings menu to 'Yes' so that if you switch off while using BASIC your program is still available when you next switch on.

When you are using BASIC you must ensure that Caps Lock is switched on at all times because BASIC expects all its commands to be entered in upper case. If you type in a command and just see the message "Mistake" then it may well be that you have mistakenly used lower case. To help you, each time you switch to BASIC Caps Lock will be turned on (if it wasn't already). When you leave BASIC the setting of Caps Lock will be returned to its original state.

When BASIC is started the screen will clear and you will see the message:

```
BBC BASIC (NC100) Version 3.10
(C) Copyright R.T.Russell 1992
>
```

The ">" symbol is the BASIC "prompt" and it shows that BASIC is ready for you to type in a command. There are two ways in which BASIC can be used. You can just type individual commands at the prompt and the result of them will be shown immediately.

Immediate commands

Try typing:

PRINT 3 + 4

When you press ⏎ the result, 7, is displayed immediately. This is known as immediate mode. Now, try typing the following (you must end every command by typing ⏎).

PRINT "Hello World"

(To type "Hello World" you must switch Caps Lock off temporarily by pressing the ⌜Caps Lock⌟ key, but remember to switch it back on before typing further BASIC commands)

PRINT is a command which does just what the name suggests and tells BASIC that when the line is executed it should print whatever follows the command on the line. If you just want some text printed you must put it in quotation marks. Anything that isn't in quotation marks BASIC assumes are further instructions. (As it did with 3 + 4, which it understood were instruction to tell it to add 3 and 4).

Writing programs - a short tutorial

Besides immediate mode the other way in which BASIC is used is for you to type in the lines of a program and these will be stored in the Notepad's memory. This is known as program mode. It is only when you give the special command, **RUN**, that the commands you have entered are actually acted upon. BASIC knows to store a command rather than act on it immediately if it starts with a number. Each line you type in must have a different number and the lines will be stored in number order. So, for example, if you were to type:

10 PRINT "Start" ⏎
30 PRINT "End" ⏎
20 PRINT 3 + 4 ⏎

The lines would actually be stored in the order 10, 20, 30. You can see this by typing the immediate mode command **LIST**. This will show you the program that is being held in the Notepad's memory.

You might wonder why the lines have been numbered 10, 20, 30 rather than just 1, 2 and 3. The reason for this is that if you later

choose to add a line between 10 and 20 you could pick a number such as 15 that would be stored between them. If the lines were numbered 1, 2, 3 there would be no room to add a line between 1 and 2. You cannot use 1.5 as a line number. You can only use whole numbers. Try typing in:

```
15 PRINT "The result of 3 added to 4 is ";
```

and then type LIST to see how that new line has been slotted in between 10 and 20. The semi-colon on the end of line 15 is a special command to BASIC that means that the next thing it prints should appear on the same line as the preceding text.

So far, all that you have done is to enter the lines of a program. To actually see what happens when the program runs you must give the immediate command RUN. You will see the program print the following:

```
Start
The result of 3 added to 4 is        7
End
```

When you have finished writing a program you can store it permanently by using the **SAVE** command. You should type the word SAVE followed by the name of a document in which you want to store your BASIC program. The document name must be given in quotation marks. To save your first program you could type:

```
SAVE "FIRST"
```

To clear the memory so that you can start entering a completely new program you use the command **NEW**. Just type:

```
NEW
```

You must be careful with this command. If you type NEW without first saving anything you want to keep you will lose everything that you have entered. If you type the command LIST you will see that your first program has disappeared. BBC BASIC has a special command, **OLD**, which you can use immediately after a NEW command to recover what has just been erased. You must use OLD straight away, as soon as you enter a new program line the old program is lost forever.

To check that the little program that you just saved can be recovered, type the command:

This will load the program back into BASIC's program memory. You can now type LIST and you will see that the program has been recovered. However, we no longer want to keep a copy of that program in BASIC's memory so type the NEW command to clear BASIC's memory then a new program can be entered. Now that BASIC is ready for a new program to be entered type in the following small program. Remember that BASIC keywords (such as PRINT, IF, THEN, GOTO) must be in upper case. If you forget you will see the error "Mistake in line x" when you RUN the program.

```
10 NUM = 1
20 PRINT NUM
30 NUM = NUM + 1
40 IF NUM < 8 THEN GOTO 20
```

Type RUN and you should see that the program prints out the numbers 1 to 7.

Line 10 sets a variable called NUM to a starting value of 1. A **variable** is the name you give to an item that will store either a number or a piece of text. In this case the item is storing the number 1 for us and we have chosen to call it NUM.

Line 20 uses the PRINT command to show the contents of the variable NUM on the screen. Because NUM is not enclosed in exclamation marks, BASIC knows that it must look up the value stored in a variable called NUM instead of just printing the word NUM on the screen.

Line 30 adds one onto the current value stored in NUM. In effect the line is saying "Set the variable called NUM to be equal to the value currently store in NUM with one added to it".

Line 40 checks to see if NUM is less than 8 (the left angle bracket is a special symbol used by BASIC to mean "less than"). If NUM still has a value less than 8 then BASIC goes onto to execute the command GOTO 20 which means, go back to line 20 and carry on running the program from there. If NUM is 8 or more then the part of the line after THEN is ignored and it goes on to execute the next line in sequence. Because there are no more lines after 40, the program stops running.

This simple 4 line program does not do very much but it has shown many of the concepts involved in programming. There is the use of variables to store information (NUM), there is the printing of results, there is the manipulation of variables to change the value that is held and there is the redirection of program flow depending on whether a certain condition is met. It is this last feature that sets a computer apart from a simple calculator. Calculators (however complex) can only perform arithmetic. It is only once the flow of calculation can be changed as the result of a previous operation that a calculating device can be considered a computer.

Anyone familiar with BASIC may have already realised that there is a much neater way of achieving exactly the same effect as that program we have just entered. Type NEW to start a new program and then enter the following 3 lines:

```
10 FOR num = 1 TO 7
20  PRINT num
30 NEXT num
```

To save you having to type in the numbers 10, 20, 30 you could type the immediate mode command **AUTO** and BASIC will generate the number in sequence for you starting at 10 and going up in steps of 10. When it shows "40" just press the [STOP] key to get back to the BASIC prompt ">".

Notice that this time we have put NUM in lower case "num". This just makes the program easier to read. We could just as easily have used NUM but the important thing to know is that BASIC treats variable names as case sensitive which means that it treats NUM and num (and Num and nUm and nuM and so on) as different variables. You must always make sure that variable names match correctly. It may be easiest to always use lower case for variable names and upper case for BASIC keywords. This makes your programs easier to read.

The words **FOR** and **NEXT** are 2 commands in BASIC that are always used together. The FOR command starts a variable at a certain value and sets an upper limit for it. Then every command in between the FOR and the NEXT command is executed and one is added to the variable. If it has not reached the limit a jump is made back to the instruction after the FOR command. The command NEXT is followed by the same name of the variable as used in the

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FOR command so that any particular NEXT command knows which
FOR command it should jump back to.

So far our little programs have had fixed numbers built into the
program (the first program could only show the result of 3 + 4, the
second and third would just print the numbers 1 to 7 on the screen).
Normally you will want to make your programs more versatile so
that each time they are run they ask for some information and then
modify the operation of the program according to the information
entered. You do this with the **INPUT** command.

Type LIST to see the current three line program and then type:

```
5 INPUT "Start";start
7 INPUT "Finish";finish
10 FOR num = start TO finish
```

Now type LIST and you will see that not only have two new lines
been added to the start of the program but line 10 has been
replaced by a new version. If you type in a new line with the same
number as an existing line then that existing line will be replaced
by the new version.

The sequence of numbers in our program is now 5, 7, 10, 20, 30. This
is bit untidy. Type the command **RENUMBER** and then LIST. You will
see that the program has been renumbered with the line numbers
going up in steps of 10.

When you RUN the modified program it will stop and ask for a Start
value. Type the number 10 and press ⌐⌐. When it asks for "Finish"
type 14. It will then print the numbers 10 to 14. If you run it again
and enter different start and finish values it will print a different set
of numbers each time.

The following is another example of a program that asks for you to
input numbers when it is run and then processes the numbers to
show a result.

```
10 INPUT "VAT rate as a percentage (0..100) "; vatrate
20 INPUT "Amount "; amount
30 total = amount + (amount * vatrate / 100)
40 PRINT amount " With VAT added is " total
```

When you RUN this program it will ask you to input the VAT Rate and
then an amount. It will print out what that amount is when it has
had VAT added to it at the given rate. Like before, lines 10 and 20

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use the INPUT command to get the user of the program to input some values. The wording of the question is enclosed in quotation marks and this is followed by a semicolon (;) and then the name of the variable in which the value should be stored. If you don't use a semicolon then no question mark is printed.

Line 30 creates a new variable called total which is the result of adding the amount multiplied by the VAT rate to the original amount. The part of the calculation in parentheses is calculated first before the final addition is performed. The asterisk (*) is the symbol BASIC understands to mean "multiply" and the slash (/) is the symbol that means "divide by".

Line 40 prints the original amount stored in the variable amount, followed by the message (in quotation marks) followed by the value of the variable total.

This program has one or two shortcomings. Firstly, it was not really necessary to create the intermediate variable called total to hold the result of the calculation. Instead, line 30 could be deleted and line 40 changed to read

```
40 PRINT amount "With VAT added is " amount + (amount * vatrate / 100)
```

To delete line 30 just type the number 30 on its own and press ⏎. This is the standard way to remove a single line from a program. If you run the program again it will work exactly as before even though it has been simplified.

The next problem that we could overcome is the fact that each time the program is RUN it just allows one set of numbers to be entered and then stops. What we could do with is having the program loop back to the start each time it gets to the end. This is easy to do. Just add line 50:

```
50 GOTO 10
```

When you type RUN it will ask you for the VAT rate and then the amount and then display the result. It will then go back round and ask for the VAT rate again. This isn't really what we wanted. It should only be necessary to enter the VAT rate once each time the program is run. What's more, there doesn't appear to be any way to stop the program running.

To stop the program press the ⏹ key. If you press the ⏹ key when a program is running it will stop running and the BASIC prompt wil

appear after a message which says "Escape at line x". This tells you which line BASIC was executing when you stopped it.

The easy answer to not being asked to input the VAT rate every time is to make the destination of the final jump to be line 20. So type the command:

`EDIT 50`

The current contents of line 50 will be displayed. Use the ⌨️ arrow keys to move the cursor to the end of the line and then delete 10 and replace it with 20. When you have finished editing the line press ⏎.

If you ever **EDIT** a line and then realise that you would like to keep the old version just press 🔑 and your changes will be ignored. You will find when editing lines that many of the quick methods you may have learnt about in the word processor can be used to move about the line. For example, the left and right arrow keys ⬅️➡️ pressed with ⬆️ will move a word at a time and when pressed with ⎵ will jump to the start or end of the line.

In our program there is still a problem that the only way to stop the program is by pressing the 🔑 key. As the program keeps waiting to ask for an amount to be input we could arrange for the program to stop running completely if the value 0 were input. Add the following line:

`25 IF amount = 0 THEN STOP`

Including this line means that if the value 0 is input when the program is asking for 'amount' the program will STOP. **STOP** is a command to BASIC that does exactly what the name suggests and stops a program running returning the BASIC prompt.

The above has given you an idea of the first steps in learning BASIC but unfortunately there isn't room in this manual for a complete tutorial. What we suggest is that you get one of the many hundreds of books available on programming in BASIC and you will find that most of what they say applies equally well to the BBC BASIC in your Notepad. If possible, get a book that is specifically written with BBC BASIC in mind.

Example BASIC programs

The following are a few simple programs that give a small taste of what is possible in BASIC on the Notepad. Don't worry too much if you don't understand all the commands used. You will probably find them fun to use even if you do not understand exactly how they work. One thing to watch is that you must type them exactly as shown including all spaces and punctuation symbols. Don't forget to press ⏎ at the end of each line that you type.

PROGRAM 1: Reaction time tester

This program uses the 1/100th second clock that BASIC gives access to in order to time your reactions:

```
10 PRINT "Get ready..."
20 D = RND(300)+200
30 TIME = 0
40 REPEAT
50 UNTIL TIME > D
60 PRINT "Press a key..."
70 T = TIME
80 X = GET
90 T = TIME - T
100 PRINT "You took" T/100 " seconds."
```

Line 20 picks a number at random between 0 and 300, adds 200 to it to make it between 200 and 500 and then sets the clock to zero in line 30.

Lines 40 and 50 then delay for that number of 1/100ths of a second. (between 2 and 5 seconds)

Line 60 prints the message you must react to. The current time is remembered in variable T and then after the GET statement in line 80 has got a key press a calculation is made to see how much time has elapsed.

This value is printed in line 100 (divided by 100 because it is a measurement in 1/100ths not whole seconds so must be converted.

160

PROGRAM 2 : A musical organ program

```
10 k$ = "AWSEDFTGYHUJKOLP;']#"+CHR$(13)  : Cnote=96
20 a$ = GET$
30 IF a$ = " " THEN STOP
40 IF a$>="1" AND a$<="4" THEN Cnote=48*(ASC(a$)-ASC("0")) : GOTO 20
45 IF a$>="a" AND a$<="z" THEN a$=CHR$(ASC(a$)-32)
50 note = INSTR(k$, a$)
60 IF note = 0 THEN GOTO 20
70 SOUND 1, 0, note*4 + Cnote, 4
80 GOTO 20
```

Line 10 defines a string called k$ which holds all the keys that the program recognises. The ⏎ key is a special case as it returns the value 13 that cannot be typed into a string - hence the "+ CHR$(13)" at the end of the string. The variable Cnote stores the pitch value for the musical note C. By varying this between 48, 96, 144 and 192 it is possible to play 4 octaves.

Line 20 is the one which reads the keys pressed on the keyboard and puts them into a$.

Line 30 gives us a neat way to stop the program (without having to hit Stop). It tests to see if the character typed was the space bar and if so the program stops.

Line 40 checks to see if the character type was between "1" and "4". If it was it sets Cnote equal to 48 * the number 1, 2 3 or 4.

Line 45 converts any lower case letters that have been typed into upper case. This relies on the fact that the character numbers of all the upper case letters are exactly 32 less than the lower case letters. ASC converts a string to its character number and CHR$ converts a character number back to a string.

Assuming the key pressed wasn't 1, 2, 3 4 or space, Line 50 then looks up the character that has been typed in k$ and sets the variable called note to be equal to the position number (so A=1, W=2, S=3, E=4 and so on up to R=21).

Line 60 then checks to see if note is zero (which means the key wasn't found in k$). If this is the case a jump is made back to line 20 to read another key.

The program will get to line 70 if the variable note contains a valid note number. This is multiplied by 4 because sounds go up in

semitones not 1/4 semitones. Finally it is added onto Cnote to make the ⌐ ⌐ key, (note=1) note C. The duration of note is set to 4/20ths of a second (1/5th) so each key press will just make a short beep.

The last line of the program just directs control back round to line 20 so it will always wait for keys to be pressed (until the space bar is used to stop the program).

Well that's the program but what do you do with it? Well, RUN it and press some keys on the middle line of the keyboard. You should hear musical notes. The keys have been picked to try and imitate the black and white notes on a piano keyboard:

keys

C# Eb   F# Ab Bb   C# Eb   F#

notes C D E F G A B C D E F G

So try tapping in the following tunes (spacing gives an idea of rhythm):

Patriotic:

GG H T GH JJ K J HG HG T G

GHJK LLL L KJ KKK K JH

JKJHG J K L ; K J H Ge

Seafaring:

KJK AA GFDG KK   ;LK L SS LKJ L ##

Scottish and lyrical:

W TT Y UU Y TT E WW

W TT Y U O P O

O PP O U UOJUYTE

WW T U O P O U Y T

While you are using the program press the keys next to the key and see what happens. When you have finished press the space bar to stop the program running.

PROGRAM 3 : Scientific graph plotting

This program asks for a mathematical function to be typed in then plots a curve of it on the screen.

```
10 pi4 = PI * 4 : st = pi4 / 480 : xscale = 480 / pi4
20 INPUT "Function of x to plot (eg SIN(x)) : " func$
30 INPUT "Y scaling value (try 31 to start) : " yscale
40 CLG
50 PRINT TAB(0,0);func$
60 FOR x=0 TO pi4 STEP st
70   y = INT(EVAL(func$)*yscale + 31)
80   PLOT 69, x * xscale, y
90 NEXT x
```

Line 10 defines some constants to be used in the program (you can have several statements on one line separated by colons ":"). The reason for making the variable pi4 is that we use the value of PI (3.14159) multiplied by 4 on several occasions so it is quicker to just calculate it the once. The variable st is used as the STEP value in a FOR..NEXT loop and xscale is used to make sure that the plotted graph will exactly fill the full width of the screen.

In line 20 The user is asked to input a function to plot. BBC BASIC is very powerful in that one can type in a function of x and later have it evaluated even though it is effectively just a string of characters.

Line 30 lets the user set a y scaling value. The reason for this is that some graphs have a much larger amplitude (top to bottom height) than others. Lower values input for y scaling will reduce the height of the graph until it will fit on the screen.

Line 40 clears the graphics screen ready to plot the graph and line 50 just prints the function that has been input as a title. The TAB(0,0) makes sure that the text appears in the first column of the first line on screen

Line 60 sets up a FOR..NEXT loop that will step x from 0 to PI*4 (this is a measure of angle in radians and is the equivalent of 720 degrees or twice round a circle). So that 480 dots are printed across the screen the previously calculated STEP value is used to increase x in a very small increment each time.

Line 70 is the business end of the program that takes the function of x that has been input and evaluates it with EVAL. The resultant y value is multiplied up by the y scaling factor so that numbers between 0 and 1 (such as you get from SIN(x)) will make a

noticeable displacement on the display (+/- 32 pixels from the centre line). The resulting value is added to 31 to position it about the middle of the screen and only the integer part is taken (using the INT function) because co-ordinates with decimal fractions would not make much sense to the PLOT command.

Each dot of the curve to be plotted is individually set by line 80. This uses the ubiquitous PLOT command which has myriad uses. It just so happens that "69" is the one that means plot a point at an absolute (x,y) position. A list of all the possible PLOT commands is given later in the manual.

Line 90 just completes the FOR..NEXT loop so that all 480 dots across the screen are used.

When you RUN this program start off with an easy function. Enter "SIN(x)" for the function (the word SIN must be in upper case but x must be in lower case). When asked for the scaling value enter 31.

Having tried that, run the program again but this time enter the function as:

`SQR(ABS(SIN(x)))`

again use a scale value of 31. The reason for the ABS function in the above is to prevent the SQR (square root) function being given a negative value which will just cause the program to stop with an error.

For a final run of the program try the very interesting (and complex) function:

`SIN(x)*COS(x) - SIN(x)*SQR(x)`

For the scaling value enter 8. This curve starts off with a small amplitude but gets greater and greater as the plot continues.

Try making up your own functions using combinations of the various mathematical functions in BASIC which are listed in the brief summary of all BASIC commands that follows later.

PROGRAM 4 : An analogue clock

```
10 DIM sn%(60), cs%(60), snoff%(60), csoff%(60)
20 CLG
30 FOR theta=0 TO 60
40   sn%(theta) = INT(31 * SIN(RAD(theta * 6)))
50   snoff%(theta) = sn%(theta) + 240
60   cs%(theta) = INT(31 * COS(RAD(theta * 6)))
70   csoff%(theta) = cs%(theta) + 31
80   PLOT 69, snoff%(theta), csoff%(theta)
90   IF (theta MOD 5)=0 THEN PROC_Draw_Hour_Blob(theta)
100 NEXT theta
110 hour$=MID$(TIME$, 17, 2)
120 min$=MID$(TIME$, 20, 2)
130 sec$=MID$(TIME$, 23, 2)
140 PRINT TAB(50, 4);MID$(TIME$, 17, 8)
150 hour=VAL(hour$) : min=VAL(min$) : sec=VAL(sec$)
153 IF hour>12 THEN hour=hour-12
155 hour=hour*5 + (min/12)
160 PROC_Draw_Hand(hour, 0.4)
170 PROC_Draw_Hand(min, 0.6)
180 PROC_Draw_Hand(sec, 0.9)
190 IF INKEY(1)=-1 THEN GOTO 110
200 STOP
300 :
400 DEF PROC_Draw_Hand(time, length)
410 newtime = time
420 IF time<>0 THEN oldtime=(time-1) ELSE oldtime=(time+59)
430 MOVE 240,31
440 PLOT 7,sn%(oldtime) * length + 240, cs%(oldtime) * length + 31
450 MOVE 240,31
460 DRAW sn%(newtime) * length + 240, cs%(newtime) * length + 31
470 ENDPROC
480 :
500 DEF PROC_Draw_Hour_Blob(angle)
510 MOVE snoff%(angle), csoff%(angle)
520 DRAW sn%(angle) * 1.1 + 240, cs%(angle) * 1.1 + 31
530 ENDPROC
```

It's a pretty mammoth program but we hope you think it is worth the effort of typing it in!

The program draws a circular clock face and shows the current time that the Notepad's clock is set to as a set of pointers on the clock face. The time is shown as text digits alongside.

There are several ways to draw a circle on a computer. One method is to use the formula for a circle $r^2=x^2 + y^2$ and rearrange this to give $y=SQR(r^2 - x^2)$. r - the radius is a fixed quantity (31 in our case) so you just vary x between 0 and r and calculate the corresponding y values and plot the points. However, this only

produces one quadrant to a circle. It is far easier to use the formulae that:

x = r sin(theta)

and

y = r cos(theta)

Then write a program that varies theta between 0 and 360 degrees and calculate the (x,y) points on a circle. This is roughly what the program does. However, it is recognised that a clock face only has 60 distinct points so there is no point in calculating 360 points. So the program just counts theta up from 0 to 60 and then uses the values of COS and SIN of theta multiplied by 6. As there is a lot of sine and cosine calculations to be done, the program does all the calculations at the very start and stores the fixed results in two arrays of variables. In addition to these a second set of arrays hold the same results but shifted across the screen by 240 points and up by 31. (To the centre of the screen).

The arrays are chosen to be integer arrays (that's what the "%" after each name means) this makes them quicker to access and more compact.

While the initial calculations are being made and the 60 points on the clock face are being drawn, a check is made to see if theta is divisible by 5 (using the MOD function). When it is a named procedure (Draw_Hour_Blob) is called to make a bigger mark to distinguish the twelve hour points on the clock face.

Once the face has been drawn the main loop of the program is entered. Every second this reads the setting of the system date and time (in TIME$) and breaks out the hour, minutes and seconds settings into separate strings. The strings are then converted to numbers using the VAL function. For each of the three quantities a call is made to the Draw_Hand named procedure. When this is called two parameters are supplied. One is the setting of hours, minutes or seconds. And the other value passed is the length of the pointer (*1.0 would be as long as the radius of the clock face, *0.4 is 2/5th the length of the radius and is used for the hour hand). Once the strings have been converted to numbers the hour value is multiplied by 5 to make it in the range 0..55. One twelfth of the minutes setting is added so that the hour hand will take one of five distinct positions between one hour and the next.

After the calls to draw the hands a check is made to see if a key is pressed. If one is then the program stops, otherwise it jumps back to read the new time and re-draw the pointers. That forms the main loop of the program. Line 300 with a single colon is just a neat way of spacing the lines of the main program from the procedure definitions that follow.

Finally there are the two procedures. The one to draw hands uses two time settings, the current hour, minute or second and the previous hour minute or second. It draws a blank line (PLOT 7) at the old location and then draws in the new pointer. When calculating the previous minute a special case of the hour/min/sec being 0 is made. In this case the previous hour/min/sec would be negative so 59 is added on.

The final procedure is the one that draws the extended legends on the "hours". It does this by drawing lines out from the circle edge to points that are 1.1*the radius further out.

We hope you enjoy these simple programs and may be inspired to delve deeper into the world of BASIC programming. The range of things you could attempt is endless. How about writing a drawing package? Or a cardfile program? Or a spreadsheet? Or a game? Or a terminal program to use the serial port (hint: treat it like a file called "COM:") ?

Differences between BBC BASIC
on the Notepad and other computers

Not every feature of BBC BASIC is supported by the version in the Notepad. Obviously the sound facilities are very limited and the screen is only 480 pixels wide by 64 lines deep, also, it can only show two "colours". This does mean that some of the standard BBC BASIC commands are limited on the Notepad. The following pages describe the way in which some of the BASIC commands differ from those that may be described in general books about BBC BASIC.

Following this is a list of all the keywords recognised in BBC BASIC, this is not a complete reference but may be useful to those who already know a version of BASIC.

Those language elements which are machine specific, particularly hardware-dependent features, are documented in the following pages. In most cases their operation has been made as

compatible as possible with the original Acorn versions, within the constraints of the NC100 design and its operating system:

ADVAL

The Notepad has no analogue input port or equivalent. Use of the ADVAL function will result in the error message "Sorry" (error code 255).

CLG

This statement clears the current graphics window (by default the entire display) to the unlit ('white') state. The graphics cursor is not moved.

CLS

This statement clears the current text window (by default the entire display) to 'space' characters and moves the text cursor to the top left.

COLOUR

The Notepad's (LCD) screen cannot display colours. Use of the COLOUR statement will result in the error message "Sorry" (error code 255). Limited control over text attributes can be obtained with VDU which is explained below

DRAW x,y

Draws a straight line (in 'lit' pixels) between the current position of the graphics cursor and the specified co-ordinates, then moves the graphics cursor to the specified position. The range of co-ordinates corresponding to positions on the screen is 0 to 479 in the x-direction and 0 to 63 in the y-direction. This statement is identical to PLOT 5, x, y.

EDIT number

A single-line editor is provided, which is entered using the command EDIT number. The contents of two or more lines may be concatenated using the syntax EDIT 1,2 but the intermediate line numbers must be edited out, and the original lines deleted, manually. A line may be duplicated by editing only the line number.

ENVELOPE

This feature is not supported. Use of the ENVELOPE statement will result in the error message "Sorry" (error code 255).

EOF#*channel*

This function returns TRUE if the file pointer is at the end-of-file and FALSE otherwise. In the special case of the serial port ("COM:") TRUE indicates that there are no input characters waiting while FALSE indicates that one or more characters are waiting at the input.

EXT#*channel*

This function returns the size, in **bytes**, of an opened file. In the special case of the serial and parallel ports ("COM:" and "LPT:") a non-zero returned value indicates that the output port is busy and f written to may result in a "Device fault". A returned value of zero indicates that the output port is ready to receive more characters.

GCOL

The Notepad's (LCD) screen cannot display colours. Use of the GCOL statement will result in the error message "Sorry" (error code 255).

INKEY(*n*), INKEY$(*n*)

Waits up to the specified maximum **time**, in units of centiseconds (1/100ths of a second), for a keypress. If no key is pressed within the time limit, INKEY returns -1 and INKEY$ returns a null string. Use of INKEY with a negative argument to test the state of each key independently is not supported.

MODE

This feature is not supported. Use of the MODE statement will result in the error message "Sorry" (error code 255).

MOVE *x,y*

Moves the graphics cursor to the specified co-ordinates, but does not affect what is displayed. The range of co-ordinates corresponding to positions on the screen is 0 (left) to 479 (right) in the x-direction and 0 (bottom) to 63 (top) in the y-direction. This statement is identical to PLOT 4.

OPENIN(*filename$*)

This function opens a file for input (read only). If the filename supplied is "COM:" then a channel is opened to the serial port.

OPENOUT(*filename$*)

This function creates a new file and opens it for output (write only). If the filename supplied is "COM:" then a channel is opened to the serial port. If the filename supplied is "LPT:" then a channel is opened to the parallel port.

OPENUP(*filename$*)

This function opens a file for input or output. If the filename supplied is "COM:" then a channel is opened to the serial port.

PLOT *n*, *x*, *y*

A multi-purpose plotting statement, whose effect is controlled by the first parameter. The range of co-ordinates corresponding to positions on the screen is 0 to 479 in the x-direction and 0 to 63 in the y-direction. In the following "relative" means that (x, y) are added onto the current graphics cursor position to determine the destination. When "absolute" co-ordinates are used they are always specified with relation to the origin of the graphics screen at (0, 0).

n	**Action**
0	Moves the graphics cursor relative to the last point.
1	Draws a line, in 'black', relative to the last point.
2	Draws a line, in 'inverse', relative to the last point.
3	Draws a line, in 'white', relative to the last point.
4	Moves the graphics cursor to the absolute position x,y.
5	Draws a line, in 'black', to the absolute position x,y.
6	Draws a line, in 'inverse', to the absolute position x,y
7	Draws a line, in 'white', to the absolute position x,y.
8-15	As 0-7, but plots the last point on the line twice (i.e. in the 'inverting' modes omits the last point).
16-31	As 0-15, but draws the line dotted.
32-63	As 0-31, but plots the first point on the line twice (i.e. in the 'inverting' modes omits the first point).

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64-71	As 0-7; but plots a single point at x,y.

72-79   Draws a horizontal line left and right from the point x,y until the first 'lit' pixel is encountered, or the edge of the window. This can be used to fill shapes.

80-87   Plots and fills a triangle defined by the two previously visited points and the point x,y.

88-95   Draws a horizontal line to the right of the point x,y until the first 'unlit' pixel is encountered, or the edge of the window. This can be used to "undraw" things.

96-103   Plots and fills a rectangle whose opposite corners are defined by the last visited point and the point x,y.

POINT(x, y)

This function returns the state of the pixel at the specified location, as 0 (unlit) or 1 (lit). If the specified point is outside the graphics window (taking into account the position of the graphics origin) the value -1 is returned.

POS

This function returns the horizontal position (column) of the text cursor with respect to the left-hand edge of the current text window, in the range 0 to 79.

SOUND *channel, loudness, pitch, duration*

A simple, two-voice, sound generator is incorporated. There is no control over sound amplitude. The four parameters behave as follows:

channel   This selects the sound channel used, 1 or 2.

loudness   This is ignored.

pitch   This selects the pitch in units of quarter-semitones. The pitch can be varied only in semitone increments, therefore the least significant 2 bits are ignored; Middle C is 100. If the pitch value is set to 0 then the sound is switched off.

duration   Values from 0 to 254 select the duration of the sound, in units of approximately 1/20 second. The value -1 or 255 causes an indefinite sound, which can be stopped only by issuing another SOUND statement or by pressing the [Stop] key.

TAB(x, y)

Used within a PRINT or INPUT statement, positions the text cursor in column x, row y with respect to the current text window.

TIME

This pseudo-variable reads and sets an elapsed-time clock in units of centiseconds (one-hundredths of a second).

TIME$

This pseudo-variable reads and sets the real-time clock. The format of the returned string is "Day.dd Mon yyyy,hh:mm:ss" where *Day* is the day of week, *dd* the day of month, *Mon* the month, *yyyy* the year, *hh* the hour (00-23), *mm* the minute and *ss* the second. The time, date or both time and date may be set by including the appropriate fields. When setting the clock the day of week is ignored and may be omitted.

VDU *List*

Passes the elements of the list to the VDU emulator (see full description below). Items terminated by a semicolon are sent as 16-bit values, LSB first.

VPOS

This function returns the vertical position (row) of the text cursor with respect to the top of the current text window, in the range 0 to 7.

Operating System Commands

The following Operating System commands are implemented. They may be accessed directly (e.g. *BYE) or via the OSCLI statement (OSCLI "BYE").

*BYE
*QUIT

Exits from BASIC and returns control to the Operating System.

*CAT
*DIR

Lists a catalogue of all the stored files.

*DELETE *filename*
*ERASE *filename*

Deletes the specified file.

*ESC (ON | OFF)

Enables or disables **the abort action** of the [Stop] key which is known in BASIC as the ESCape key; **after** *ESC OFF the [Stop] key simply returns the ASCII code ESC (27). *ESC ON, or *ESC, restores the normal action of the [Stop] key.

*EXEC *filename*

Accepts console input from **the specified** file instead of from the keyboard (note that GET and INKEY always read from the keyboard).

*KEY n (*string*)

Redefines a key to return the specified string. The key number n is from 0 to 127, where 41 to 66 correspond to [Symbol][^] to [Symbol][7] respectively. The string may contain the "escape" symbol | in order to insert non-printing characters. For example, | M indicates [↵], |? indicates DEL, | | indicates the character | itself and | ! causes bit 7 of the following character to be set. If the string is enclosed in quotes (which is optional) | " allows the character " to be included.

*LOAD *filename aaaa*

Loads the specified file into memory at hexadecimal address *aaaa*. The load address must be specified, and point to a valid memory location.

*PRINTER *n*

Selects the printer as parallel (*n*=0) or serial (*n*=1).

*RENAME *oldfile newfile*

Renames the file *oldfile* as *newfile*.

*SAVE *filename aaaa bbbb*
*SAVE *filename aaaa +llll*

Saves a specified range of memory to a file. The address range is specified either as start address *aaaa* and end address +1 *bbbb* or as start address *aaaa* and length *llll*.

*SPOOL *(filename)*

Copy all subsequent console output to the specified file. If the *filename* is omitted, any current spool file is closed and spooling is terminated.

*| *comment*

This is a comment line. Anything following the | is ignored.

The VDU emulator

All console output is passed to a software emulator of the BBC Micro's VDU drivers. VDU codes perform a function similar to those of the BBC Micro, consistent with the hardware and Operating System differences:

VDU 0   Ignored

VDU 1,n   The following byte is sent to the printer, if enabled (with VDU 2). If the printer is not enabled, the byte is ditched. Any 8-bit value (0- 255) can be sent. This works even when the VDU is disabled with VDU 21.

VDU 2   Enables the printer. Subsequent characters are sent both to the screen and to the printer. The only control characters sent to the printer are BEL (7), BS

(8), HT (9), LF (10), VT (11), FF (12) and CR (13). Bytes which are parameters for VDU commands are not sent to the printer, e.g. VDU 27,13 does not send a carriage return to the printer.

VDU 3   Disables the printer. Cancels the effect of VDU 2.

VDU 4   Causes the text cursor to be displayed.

VDU 5   Causes the text cursor to be hidden.

VDU 6   Enables the screen display. Cancels the effect of VDU 21.

VDU 7   Causes a 'beep'.

VDU 8   Moves the text cursor left one character. If it was at the left edge of the window, it is wrapped to the end of the previous row (right-hand edge of window). If it was also on the top row of the text window, it is moved to the bottom row.

VDU 9   Moves the text cursor right one character. If it was at the right hand edge of the window, it is wrapped to the beginning of the next row (left-hand edge of window). If it was also on the bottom row of the text window, it is moved to the top row.

VDU 10   Moves the text cursor down one row. If it was on the bottom row of the text window, the window scrolls up.

VDU 11   Moves the text cursor up one row. If it was on the top row of the text window, it is moved to the bottom row.

VDU 12   This is identical to CLS in BASIC. It clears the text window to space characters and moves the text cursor to the 'home' position (top-left corner of the text window).

VDU 13   Moves the text cursor to the left-hand edge of the window, but does not move it vertically.

VDU 14   Enables inverse text.

VDU 15   Disables inverse text. Cancels the effect of VDU 14.

VDU 16	This is identical to CLG in BASIC. It clears the graphics window to unlit ('white') pixels. The graphics cursor is not moved.
VDU 17	Enables bold text.
VDU 18	Disables bold text. Cancels the effect of VDU 17.
VDU 19	Enables underlined text.
VDU 20	Disables underlined text. Cancels the effect of VDU 19.
VDU 21	Disables VDU output. All subsequent VDU commands except 1 to 6 are ignored. If the printer is enabled, VDUs 7,8,9,10,11,12 and 13 will still be sent to the printer.
VDU 22	Ignored
VDU 23	Ignored

VDU 24,leftx;bottomy;rightx;topy;

Sets the graphics window. Horizontal (x) co-ordinates are in the range 0 (left) to 479 and vertical (y) co-ordinates in the range 0 (bottom) to 63.

VDU 25, n, x; y;

This is identical to PLOT n, x, y in BASIC. See PLOT for more details.

VDU 26	Resets the text and graphics windows to their default positions (filling the whole screen), homes the text cursor, moves the graphics cursor to 0,0 and resets the graphics origin to 0,0.
VDU 27,n	Sends the next byte to the screen without interpreting it as a control code. Allows graphics characters corresponding to VDU 0-31 and VDU 127 to be displayed. Acts in a similar way to VDU 1 for the printer.

Sets the text window. Horizontal (x) co-ordinates are in the range 0 (left) to 79 and vertical (y) co-ordinates in the range 0 (top) to 7.

VDU 29, x; y; Moves the graphics origin to the specified co-ordinates. Subsequent graphics co-ordinates are with respect to this position.

VDU 30 Homes the text cursor, to the top-left corner of the text window.

VDU 31, x, y Identical to PRINT TAB(x, y); in BASIC. Positions the text cursor according to the next two bytes. The co-ordinates are with respect to the edges of the current text window.

VDU 127 Backspaces the cursor by one position and deletes the character there.

Operating System error messages

These (trappable) errors are related to operating system functions:

Access denied (189): An inappropriate operation was attempted on a device (e.g. reading from the parallel port).

Bad command (254): A star command was invalid or incorrectly formed.

Bad key (251): An attempt to define a function key string failed.

Bad string (253): A string was too long, or had unmatched quotes.

Channel (222): The channel number passed to a filing function was invalid

Close error (200): An error occurred when trying to close a file.

Device fault (202): A time-out occurred when reading or writing a device.

File creation error (190):	An OPENOUT, SAVE, *SAVE or *SPOOL failed, because the specified file could not be created (e.g. too many files).
File exists (196):	A *RENAME command specified the new name as the name of an existing file.
File not found (214):	A LOAD, *LOAD, *EXEC, *DELETE or *RENAME failed, because the specified file did not exist.
File write error (198):	An error occurred when writing a file with SAVE, *SAVE, PRINT#, BPUT# or *SPOOL, e.g. because of insufficient memory.
Too many open files (192):	An attempt was made to exceed the maximum number of open files (7).

BASIC memory usage

BBC BASIC allocates as much RAM as possible for its use on entry, up to a maximum of about 40 Kbytes for user programs, variables and stack. If less memory than this is available the value of PAGE will be raised accordingly. At least 2 Kbytes of memory will be left free for new files. Note that the user must not raise HIMEM above its initial value or lower PAGE below its initial value; any attempt to do so will most probably crash the machine.

It may also be possible to crash the machine by injudicious use of BBC BASIC's equivalent of the POKE command (?n = x). Also, almost any attempt to use the assembler built into BBC BASIC will crash the machine. If you do any of these things then the only way to correct matters may be to perform a hard reset by holding down [Function][Stop] and [Ctrl] when switching the machine on. This will lose all data and documents stored in the machines memory. It would, therefore, be advisable to avoid using any of these features unless you are absolutely sure you know the effect they may have.

Z80 assembler

Unlike the Acorn computers that are based on the 6502 processor, the Notepad is based on the Z80 processor. Consequently, the assembler built into the BASIC recognises Z80 mnemonics rather than the 6502 variety. Assembly language programming is such an advanced subject that there is no way it can be covered in this manual. We would warn people not familiar with machine code programming to avoid attempting to use the assembler feature as it will almost certainly lead to a machine crash and subsequent loss of data.

BASIC Keywords

The following is a list of all the BBC BASIC keywords. Those not supported on the Notepad are noted. Differences in operation of some of the commands have been explained in a previous section. This list is not intended to be a complete reference of the language. There are many good books available on the subject of programming in BASIC and many of these talk specifically about the BBC version of the language. This list may be useful for those who already know how to program or for those inquisitve beginners who would like to experiment.

ABS
var = ABS (*number*)

Sets *var* equal to the absolute value of *number*. Negative *numbers* are converted to positive. Positive *numbers* are untouched.

ACS
var = ACS(*number*)

Sets *var* equal to the arc-cosine of the *number*. The result is in radians (which may be converted to degrees using the DEG function).

ADVAL

Not supported on the Notepad

AND
var = *number* AND *number*

Sets *var* equal to the logical bitwise AND of the two numeric arguments.

ASC
var = ASC(*string*)

Sets *var* equal to the ASCII value of the first character of the given *string*.

ASN
var = ASN(*number*)

Sets *var* equal to the Arc Sine of the argument. Result is in radians.

ATN
var = ATN(*number*)

Sets *var* equal to the Arc Tangent of the given number. The result is in radians and may be converted to degrees using the DEG function.

AUTO
AUTO *start, step*

Starts generating automatic line numbers at line *start* and goes up by *step*. If *start* and *step* aren't given it starts at 10 and goes up in steps of 10.

BGET
var = BGET#*number*

Sets *var* equal to the next character from the file that has been opened as *number*. The file can also be "COM:" for the serial port.

BPUT
BPUT#*number, value*

Writes the *value* to a file that has been opened as *number*. The file could also be the serial port "COM:" or the parallel port (LPT:).

CALL
CALL *address, parameters*

Calls a machine code subroutine. Not for the faint hearted.

CHAIN
CHAIN *string*

Loads and then continues on to run the program stored in the file whose name is given in *string*.

CHR$
var = CHR$(*number*)

Sets a string variable equal to the character whose ASCII code number is *number*.

CLEAR
CLEAR

This resets all dynamic variables to the unused condition. The only variables left intact are the static variables A% to Z% and @%.

CLG
CLG

Clears the graphics screen to 'white'.

CLOSE
CLOSE#number

Closes the file identified by number.

CLS
CLS

Clears text screen to all spaces.

COLOUR
COLOR

Not supported on the Notepad

COS
var = COS(number)

Sets var equal to the Cosine of the angle number which is specified in radians. The RAD function may be used to convert an angle in degrees to radians.

COUNT
var = COUNT

Sets var equal to the number of characters sent to the display since the last new line.

DATA
DATA constant, constant, constant...

Used to include constant data within a program which may be used by means of the READ command which will read it into variables.

DEF

DEF PROC*name*
DEF FN*name*

Used to begin the definition of a named procedure or function. The following example may give a taste of how this works:

```
10    PROCtest("Hello World")
20    PRINT FN_Average(3,9,14)
30    END
40    :
100 DEF PROCtest(string$)
110 PRINT string$
120 ENDPROC
130 :
200 DEF FNAverage(n1, n2, n3)
210 =(n1+n2+n3)/3
```

DEG

var = DEG(*number*)

Sets *var* equal to the *number* converted from radians to degrees. In radians a complete circle is equal to 2*PI while in degrees a complete circle is 360 degrees so DEG just divides by 2*PI and multiplies by 360 (which is the same as divide by PI and multiply by 180).

DELETE

DELETE *start, finish*

Deletes a range of lines from a program. DELETE 10,100 would remove all lines between 10 and 100 (inclusive). To delete a single line it is easier just to type the line number on its own.

DIM

DIM *var, size*

Reserves space for an array of items. For example DIM A(5) would reserve space for 6 items A(0), A(1), A(2)...A(5)

DIV

var = *number* DIV *number*

Sets *var* equal to the integer result after dividing the first *number* by the second. The remainder is discarded. The function MOD can be used to get the remainder.

DRAW
DRAW x,y

Draws a line in "lit" pixels between the current graphics cursor position and (x,y). x is 0..479 and y is 0..63

ELSE
IF *condition* THEN .... ELSE ....

Used to provide an alternative sequence of commands if the *condition* in an IF statement fails.

END
END

Marks the point where you would like the program to stop running and return to the BASIC prompt (>). END is not necessary as a program will stop once it has executed the highest line number but END makes things tidy and can be used to END the program early. It also is used to separate the main program from the procedure and function definitions and other subroutines.

ENDPROC
ENDPROC

Marks the end of a procedure definition.

ENVELOPE

Not supported on the Notepad

EOF
var = EOF#*number*

Sets *var* equal to TRUE (-1) if the file identified by *number* is at its end.

EOR
var = *number* EOR *number*

Sets *var* equal to the logical bitwise exclusive OR of the two *numbers*.

ERL
var = ERL

Sets *var* equal to the **line number** of the last line that caused an error.

ERR
var = ERR

Sets *var* equal to the number of the last error code. The possible codes are:

1 Out of range	21 -ve root	41 No such line
4 Mistake	22 Log range	42 Out of DATA
5 Missing ,	23 Accuracy lost	43 No REPEAT
6 Type mismatch	24 Exp range	45 Missing #
7 No FN	26 No such variable	
9 Missing "	27 Missing)	
10 Bad DIM	28 Bad HEX	
11 DIM space	29 No such FN/PROC	
12 Not LOCAL	30 Bad call	
13 No PROC	31 Arguments	
14 Array	32 No FOR	
15 Subscript	33 Can't match FOR	
16 Syntax error	34 FOR variable	
17 Escape	36 No TO	
18 Division by zero	38 No GOSUB	
19 String too long	39 ON syntax	
20 Too big	40 ON range	

ERROR
ON ERROR GOTO
ON ERROR OFF

Used to trap errors. When an **ON** ERROR GOTO command is used subsequent errors cause **program** control to go to the line identified in the GOTO part of the command. ERR and ERL can be inspected to see what caused the error and if it can be corrected.

EVAL
var = EVAL(BASIC expression in a *string*)

This very powerful command passes the *string* to the BASIC expression handler and then sets *var* equal to the result. A simple 4 line program will turn BASIC into a scientific calculator:

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```
10 REPEAT
20   INPUT "Enter command : " e$
30   PRINT EVAL e$
40 UNTIL FALSE
```

When RUN this might give the following:

```
Enter command : SIN(RAD(45))
0.707106781
Enter command : DEG(ATN(SQR(2)))
54.7356103
Enter command : TIME$
Thu.19 Mar 1992,00:27:42
```

EXP

var = EXP(*number*)

Sets *var* equal to the natural logarithm base (e=2.71828183) raised to the power of *number*. The inverse of this function is provided by LN.

EXT

var = EXT#*number*

Sets *var* equal to the total length of the file identified by *number*.

FALSE

var = FALSE

FALSE is a fixed variable defined as 0. As BASIC uses the value 0 to mean FALSE in conditional tests such as IF and UNTIL you can use FALSE in these situations. For example,

```
REPEAT
PRINT "Hello"
UNTIL FALSE
```

will repeat forever (until Stop is pressed).

FN

var = FN*name*
DEF FN*name*

Used in both defining and using a named function. See DEF for more details.

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FOR *var=start number* TO *finish number* STEP *step value*

Used to start a repetitive loop for a fixed number of iterations. *var* will start at the value *start number* and then, each time a corresponding NEXT instruction is executed *var* will be increased by *step value* (or just 1) until it reaches (or exceeds) *finish number*.

GCOL

Not supported on the Notepad

GET
var = GET

Sets *var* equal to the ASCII value of the next key pressed. Waits for a key to be pressed before returning.

GET$
*var$* = GET$

Sets the *string* variable *var$* equal equal to the next character key pressed. It waits for a key press before returning.

GOSUB
GOSUB *line*

A jump is made to the section of program starting at *line*. When the next RETURN command is executed control returns to the statement after the GOSUB command.

GOTO
GOTO *line*

Control is transferred to the *line* identified in the GOTO command. To make programs easy to read the use of excessive GOTO commands should be avoided. It is far better to change the flow of a program using the FOR...NEXT, REPEAT...UNTIL, DEF PROC and GOSUB structures.

HIMEM
HIMEM = *number*
var = HIMEM

Can be used either to set a new high address for the top of BASIC's program memory or to find out what it is currently set to. It is unwise to change this unless you are sure you know what you are doing

as you may crash the machine leading to the need to completely reset it and lose all your documents. it is OK to reduce HIMEM but do not increase it above its initial value.

IF
IF *condition* THEN

Used to conditionally execute statements. The condition is tested and if it results in a TRUE (-1) value the statements after THEN are executed.

INKEY
var = INKEY(*time*)

Sets *var* equal to the ASCII value of the next key pressed. Unlike GET it only waits for the length of time given by *time* in centiseconds. If no key is pressed it returns -1.

INKEY$
*var$* = INKEY$(*time*)

Waits for *time* 1/100ths of a second for a key to be pressed and returns the character in *var$*. If no key is pushed in time it sets *var$* to the null (empty) string.

INPUT
INPUT "*prompt text*", *var*

Stops and displays the *prompt text* and then sets *var* equal to the users response. *var* can also be a string variable to allow the user to enter text as well as *numbers*.

INPUT LINE
INPUT LINE *var$*

Allows the user to type a *string* of text including commas, quotes and leading spaces and assigns this to *var$*.

INPUT#
INPUT#*number*, *var*

Inputs variable *var* from the file identified by *number*.

INSTR

var = INSTR(*string, string to find, number*)

The first named *string* is searched to see if it contains the *string to find* and if so *var* is set to the position in the string where it occurs. The search can be started part way into the string by giving a *number*.

INT

var = INT(*number*)

Converts a real *number* to a lower integer.

LEFT$

*var$* = LEFT$(*string$, number*)

Takes the *number* of leftmost characters from *string$* and assigns them to *var$*.

LEN

var = LEN(*string$*)

Sets *var* equal to the number of characters in the given *string*.

LET

LET *var* = *value*

LET assigns a *value* to a variable (either number or string). In fact LET is optional and need not be used. So

```
LET X = X + 3
```

and

```
X = X + 3
```

are exactly equivalent.

LINE

 NPUT LINE

See INPUT LINE.

LIST
LIST *number, number*

Lists a program. If a single *number* is given then only that line is shown. If both *numbers* are given then all lines between the two are shown.

LISTO
LISTO *number*

Like LIST but the *number* affects how the listing is formatted. Valid *numbers* are 0 to 7. LISTO 7 gives the easiest to follow listing. While a program is listed you can press ⌊ˢᵗᵒᵖ⌋ to pause the listing. Press it again to stop.

LN
var = LN(*number*)

Sets *var* equal to the natural logarithm of the *number*. Natural logs are to the base e (=2.71828183). The inverse of LN is EXP.

LOAD
LOAD *prog_name*

The *prog_name* (in quotes or contained in string variable) is the name of a document that contains a program to load.

LOCAL
LOCAL *var*

Specifies a variable that is only local within a procedure or function declaration. The value is lost (undefined) outside of the proc/fn.

LOG
var = LOG(*number*)

Sets *var* equal to the base 10 logarithm of *number*. There is no inverse function of LOG as such because the equivalent is to use 10^*number* (ie 10 raised to the power of a *number*).

LOMEM
LOMEM = *var*
var = LOMEM

May be used to read and set the point in memory where dynamic data structures will be placed. It would be unwise to change this

unless you are absolutely certain that you know what you are doing.

MID$
var$ = MID$(string$, start, length)

Sets var$ equal to a string of characters taken from string$ starting at position start for length characters.

MOD
var = number MOD number

Divides the first number by the second and sets var equal to the remainder. See also DIV which sets var equal to the integer result of dividing one number by another.

MODE

Not supported on the Notepad

MOVE
MOVE x,y

Moves the graphic cursor position to (x,y) where x is 0..479 and y is 0..63

NEW
NEW

Clears the current program from memory. If you use this accidentally you can immediately use OLD to recover it but OLD will no longer function once you start to enter new program lines or set new variables.

NEXT
NEXT var

Used to mark the end of a FOR loop and cause a jump back to the statement after FOR until the loop variable has reached its upper limit. The var name can be used to make sure a jump is made back to the correct FOR command.

NOT
var = NOT number

Sets var equal to the bit by bit binary inversion of number.

OLD
OLD

Used to recover a program immediately after the accidental use of NEW.

ON
ON *var* GOTO *line, line...*
ON *var* GOSUB *line, line...*

Can be used to goto or gosub a number of different lines depending on the value of *var*.

OPENIN
var = OPENIN(*string*)

The document/file whose name is given by *string* is opened for input (reading) and a file number is returned in *var*. This may be used in the various file reading commands such as BGET# and INPUT#. If the filename given is "COM:" then input will be read from the serial port.

OPENOUT
var = OPENOUT(*string*)

The document/file whose name is given by *string* is opened for output (writing) and a file number is returned in *var*. This may be used in the various file writing commands such as BPUT#. If the filename given is "COM:" then output will go to the serial port. If the name is "LPT:" then the output will be to the parallel printer port.

OPENUP
var = OPENUP(*string*)

Has the combined effect of OPENIN and OPENOUT. The device or file is opened for reading and writing. Can be used with files and the serial port "COM:"

OR
var = *number* OR *number*

Sets *var* equal to the result of the logical bitwise OR of the two *numbers*.

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OSCLI
OSCLI(*string*)

The *string* is passed to the operating system to be executed. This can be one of the star commands such as *CAT. That is, OSCLI("*CAT").

PAGE
PAGE = *var*
var = PAGE

PAGE can be used to read or set the starting address of the current program area. It would be extremely unwise to change this value unless you are totally certain you know what you are doing.

PI
var = PI

Sets *var* equal to the value of π **3.14159**, the ratio of a circles circumference to its diameter.

PLOT
PLOT x,y

Turns the pixel at (x,y) on. x is 0..479 and y is 0..63

POINT
var = POINT (x,y)

Sets *var* equal to the current state of the pixel at point (x,y). x i 0..479 and y is 0..63

POS
var = POS

Sets *var* equal to the current horizontal position of the text cursor on the screen.

PRINT
PRINT *var*

Prints the contents of a variable or variables and fixed text on the screen. The line of items following PRINT is passed to BASIC's expression evaluator before output is produced. A tilde character '~' can be used before numeric items that should print in hexadecimal. Commas in the print list cause output to start at the

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next tab stop. Semicolons mean the items follow on immediately adjacent. A single apostrophe forces printing to start on a new line.

Print format can be controlled by setting the variable @% before printing but there are too many options to describe here. The functions TAB(x,y) and SPC(number) can be used in a print statement to either position the cursor at location (x,y) or at a fixed number of spaces from the current position.

PROC
PROCname

Used to invoke a named procedure that is defined using DEF PROC.

PTR
PTR#number = var
var = PTR#number

Allows the random access pointer of file number to be read or set.

PUT
PUT port, var

Outputs a value to an I/O port address. It would be very unwise indeed to experiment with this command as you will almost certainly crash the Notepad necessitating a reset which will lose all stored data.

RAD
var = RAD(number)

Sets var equal to the value of number converted from degrees to radians.

READ
READ var

Reads data from a DATA statement and assigns it to var.

REM
REM comment

Allows comments to be added to programs. Anything following REM is considered a remark and will be ignored. It is good practice to include comments in programs so that at a later date you will understand what a particularly complicated line really does! It can

also be used to temporarily disable a command while testing a program

RENUMBER
RENUMBER *start, step*

Renumbers a program starting at line 10 and going up in steps of 10. If *start* and *step* are given then numbering will begin at *start* and go up in units of *step*.

REPEAT
REPEAT

Used to begin a loop that ends with the command UNTIL.

REPORT
REPORT

This prints the error message associated with the last error that occurred and is usually used in an ON ERROR GOTO trap to print an error message when your program determines that the error which has occurred is not one that it can cope with.

RESTORE
RESTORE *line*

When using READ to read data from DATA statements, RESTORE can be used to set the reading pointer back to a specified line so that data can be re-read.

RETURN
RETURN

Used at the end of a section of program that has been jumped to by the GOSUB command. Control returns to the statement after GOSUB.

RIGHT$
*var$* = RIGHT$(*string$, number*)

Sets *var$* equal to the string of characters taken from the rightmost end of *string$* and of length *number*.

RND
var = RND(*number*)

Sets *var* equal to a random number between 1 and *number*. If *number* is not given then the *var* is between 1 an &FFFFFFFF. If the given *number* is negative then the random number generator is set to a value based on that number and that *number* is returned in *var*.

RUN
RUN

Starts running the program currently held in memory.

SAVE
SAVE *prog_name*

The current program in memory is saved to a document called *prog_name* (this may be either a name in quotes or a *string* variable that contains a name to use). It is very important to SAVE a program you are working on before switching away from BASIC (or typing *QUIT) as the program is not automatically saved.

SGN
var = SGN (*number*)

Sets *var* equal to -1 if the *number* is negative or 0 if it is positive.

SIN
var = SIN(*number*)

Sets *var* equal to the Sine of the given angle which must be specified in radians. The RAD function can be used to change an angle in degrees into radians before using the SIN function.

SOUND
SOUND *channel, volume, pitch, duration*

Makes a sound on the Notepad's speaker. The Notepad has two sound channels so *channel* must be either 1 or 2. The volume is not variable so the *volume* parameter is ignored. The *pitch* specifies the note to be played. A value of 100 is middle C. Although each step of the pitch parameter should change the pitch by a quarter semitone the Notepad can only play notes in steps of a semitone so there is no point using values that are not a multiple of four. The *duration* is given in twentieths of a second. So, for example:

Will play the A above middle C on channel 1 for 1 second (20/20ths).

To play a two note chord, use a SOUND command with a duration of -1 to start the first note on channel 1 and then use a second SOUND command to play the other note "on top" on channel 2. Sounds can be made to stop playing by using another SOUND command with a duration of 0.

SPC
PRINT SPC(*number*)
INPUT SPC(*number*)

When used in either a PRINT or INPUT command it prints *number* spaces before any following text.

SQR
var = SQR(*number*)

Sets *var* equal to the square root of *number*.

STEP
FOR *var=start* TO *finish* STEP *step*

Allows a FOR..NEXT variable to be increased (or decreased) in steps other than one.

STOP
STOP

Just like END it stops a program running but prints a message to say where the program stopped. Liberal use of STOP commands can help when developing a program to trace the flow of execution.

STR$
*var$* = STR$(*number*)

Sets a *string* to be equal to a *number* in the same format that it would be printed in. If a tilde is included between the $ and open parenthesis the *number* will be converted to hexadecimal.

STRING$
*var$* = STRING$(*number, string*)

Sets *var$* equal to *number* repetitions of *string*.

TAB
PRINT TAB(x,y)
INPUT TAB(x,y)

Used to arrange for the printed output of a PRINT or INPUT command to appear on the screen at location (x,y)

TAN
var = TAN(number)

Sets var equal to the Tangent of the angle number. This must be specified in radians. To use degrees use the RAD function to convert the value from degrees to radians before using TAN.

THEN
IF condition THEN

Introduces the statements in an IF command that should be executed if the condition is met. The use of THEN is optional but makes programs easier to read.

TIME
TIME = var
var = TIME

A variable that can be set and read to measure elapsed time. It increases once every 1/100th of a second. Typically this is used to measure a fixed amount of elapsed time. For example:

```
TIME = 0
REPEAT
UNTIL TIME > 1000
```

would pause for approximately 10 seconds.

TIME$
var$ = TIME$
TIME$ = var$

Sets var$ equal to a string which contains the current date and time in a fixed format. MID$ can be used to pick selected fields from this. It is also possible to set the date and time stored in the Notepad by setting the TIME$ variable.

TO
FOR *var* = *start* TO *finish*

Used in a FOR statement to **divide the starting value** from the end value of the loop variable.

TRACE
TRACE ON
TRACE OFF
TRACE *number*

The command TRACE **ON will cause** BASIC to print the number of each line it executes in square brackets to allow the flow of execution to be followed. Tracing can be turned off using the command TRACE OFF. If the command TRACE *number* is used then only line numbers below *number* will be printed. By placing all subroutines at high numbered lines and the main program in the low numbered lines you can arrange to only show tracing of the main part of the program.

TRUE
var = TRUE

Sets *var* to be equal to the value -1 that BASIC understands as TRUE in IF and UNTIL expressions

UNTIL
UNTIL *condition*

Ends a loop started by the REPEAT command. As long as the condition is not met a jump will be made back to the statement after REPEAT.

USR
var = USR(*number*)

Calls a machine code routine at address *number* and returns the value of the HL and HL' registers to the named variable. Not a command for the uninitiated in the black art of machine code programming.

VAL
var = VAL(*string*)

Converts as much of a string that can be interpreted as a number into a numeric value and assigns it to *var*.

VDU
VDU *number*

Sends the *number* value to the terminal emulator built into BASIC. Some values have a special significance as explained elsewhere in this manual.

VPOS
var = VPOS

Sets *var* equal to the vertical position of the text cursor.

WIDTH
WIDTH *number*

Sets the width of print zones. A value of zero will stop it taking any action.

Appendix 1

Table of characters available in the Notepad

The following table shows the characters that can be used in the Notepad. The character numbers can be used when writing BASIC programs.

DEC	Hex Digits	0-	1-	2-	3-	4-	5-	6-	7-	8- 128	9- 144	A- 160	B- 176	C- 192	D- 208	E- 224	F- 240
0	-0		▲		0	@	P	`	p	Ç	É	á	▓	└	⊥	α	≡
1	-1	☺	▼	!	1	A	Q	a	q	ü	æ	í	█	┴	├	β	±
2	-2	☻	↔	"	2	B	R	b	r	é	Æ	ó	▒	┬	┤	Γ	≥
3	-3	♥	‼	#	3	C	S	c	s	â	ô	ú	│	├	┌	π	≤
4	-4	♦	¶	$	4	D	T	d	t	ä	ö	ñ	┤	─	┘	Σ	⌠
5	-5	♣	§	%	5	E	U	e	u	à	ò	Ñ	┬	┼	┐	σ	⌡
6	-6	♠	▬	&	6	F	V	f	v	å	û	ª	╞	╪	█	μ	÷
7	-7	●	↕	'	7	G	W	g	w	ç	ù	º	╖	╧	▄	τ	≈
8	-8	◘	↑	(	8	H	X	h	x	ê	ÿ	¿	╕	╚	▌	Φ	°
9	-9	○	↓	)	9	I	Y	i	y	ë	Ö	⌐	╣	╔	▐	Θ	∙
10	-A	◙	→	*	:	J	Z	j	z	è	Ü	½	║	╩	▀	Ω	•
11	-B	♂	←	+	;	K	[	k	{	ï	ø	¼	╗	╦	█	δ	·
12	-C	♀	∟	,	<	L	\	l			î	£	¡	╝	╠	▀	∞	√
13	-D	♪	↔	-	=	M	]	m	}	ì	Ø	«	╜	═	▄	φ	·
14	-E	♫	◄	.	>	N	^	n	~	Ä	Pt	»	╛	╬	▀	ε	■
15	-F	☼	►	/	?	O	_	o	◁	Å	ƒ	»	┐	┤	▀	∩	

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Appendix 2

Summary of Word processor Editing Commands

Command	Keys
Block, Copy	[Function] + [0 :]
Block, Delete	[Function] + [Del→]
Block, Move	[Function] + [- +/-]
Block, Mark	[Function] + [9 9]
Centre line	[Control] + [+ =]
Clear block markers	[Control] + [K 2]
Control codes, insert	[Control] + [X] (i b u c e l p q s or t)
Control codes, show/hide	[Function] + [$ 4]
Convert to upper case	[Control] + [7 +]
Convert to lower case	[Control] + [\\]
Copy default ruler (first active ruler)	[Control] + [D]
Copy previous ruler but one	[Control] + [A]
Delete all text in document	[Function] + [←Del]
Delete one word back	[⇧] + [←Del]
Delete one word forwards	[⇧] + [Del→]
Delete line	[Control] + [£ 3]
Delete to start of line	[Control] + [←Del]
Delete to end of line	[Control] + [Del→]
Find text	[Function] + [% 5]
Find next occurrence	[Control] + [^ 6]
Find previous occurrence	[Control] + [% 5]
Find and Replace	[Function] + [^ 6]

Finish what you are doing	`Stop`
Go to specified Line, Page or Column	`Control` + `G` (Ln, Pn, Cn)
Hyphen, non-break	`Control` + `N` `- +/-`
Hyphen, soft	`Control` + `H`
Insert date	`Symbol` + `D`
Insert line (with **Insert mode off**)	`Control` + `5`
Insert on/off	`Control` + `$ 4`
Insert page break	`Control` + `P x`
Insert special character	`Symbol` + `Secret Menu` highlight symbol then press `↵`
Insert time	`Symbol` + `T`
Justification on/off	`Control` + `J 1`
Line drawing on/off	`Control` + `◇` + `L 3`
Macro, insert	`Symbol` + (user defined key)
Markers, insert or go to **place**	`Control` `●↓` (0 to 9 ? L R] or [ )
Move back 6 lines	`Control` + `↑`
Move forward 6 lines	`Control` + `↓`
Move block	`Function` + `- +/-`
Move to start of **marked block**	`Control` `●↓` `↑ %`
Move to end of marked block	`Control` `●↓` `↓`
Move to end of line	`Control` + `Calc →`
Move to start of line	`Control` + `Word ←`
Move to start of next line	`◇` + R
Move to end of document	`Control` + `↓`
Move to start of document	`Control` + `↑ %`

Move to last position	`Control` + `L₃`
Move to next tab	`⇧` + `⭲`
Move one page back	`Control` + `↑9`
Move one page forward	`Control` + `↓.`
Move back one paragraph	`Control` + `< -`
Move forward one paragraph	`Control` + `> .`
Move back one word	`⇧` + `Word←`
Move forward one word	`⇧` + `Calc→`
Multiple markers, insert	`Control` `●↵` `? +`
Multiple markers, go to	`Control` `⇧` (`6←` forwards/ `%5` back)
Non-break hyphen	`Control` + `N₀₂₉` -
Non-break space	`Control` + `N₀₂₉` `[          ]`
Ruler line, Show	`Control` + `V` `R`
Ruler line, switch to default	`Control` + `D`
Soft hyphen	`Control` + `H_`
Space, Insert	`Control` + `[          ]`
Spaces show/hide	`Control` + `V` `S`
Spell check document	`Function` `'₁`
Spell check from cursor	`Control` + `S`
Spell check word	`Control` + `'₁`
Status line, on/off	`Function` `:₈₈`
Swap (transpose) two characters	`Control` + `A`
Tabs and returns show/hide	`Control` + `V` `T`
Undo last block/line delete operation	`Control` + `U₄`
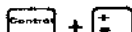
Word count   `Control` + `±`

Word wrap on/off   `Control` `W`

Appendix 3

Display of Macro definitions

When the display macros command is used you will see the various keys that have been assigned. Any characters in the above table will appear normally but in addition to this you may see numbers contained with ^ characters. There is a number for each possible function in the word processor. The following is a list of those numbers and what they mean together with the key combination that is used to achieve the function.

Number	Keys used	Description
512	Control ^♀ ↓	Set or go to marker
513	Control A	Swap adjacent characters
515	Control C	Centre line
	Control + =	
516	Control D	Default ruler
517	Control E	Delete to end of line
	Control Del →	
518	Control F	Format paragraph
519	Control G	Go to column, line or page
521	Control I 5	Insert line
522	Control J 1	Justify on/off
523	Control K 2	Clear block markers
524	Control L 3	Go to last position
525	Control M 0	Move block
	Function - +/-	
526	Control N	Non break character
529	Control Q	Spell check single word
	Control 1	
530	Control R	Insert previous ruler line
531	Control S	Spell check from cursor
533	Control U 4	Undelete block
534	Control V	Various view options
535	Control W	Word wrap on/off
536	Control X	Enter control code
538	Control Z	Set block marker
	Function (9 9	
539	Control [%	Move to start of document
540	Control \	Convert to lower case

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541	[Control][?/]	Move to end of document
545	[Del→]	Delete forwards
639	[←Del]	Delete backwards
722	[Function][←Del]	Delete all text
723	[⇧][←Del]	Delete word backwards
724	[Control][←Del]	Delete to start of line
727	[Control][⇧][^6]	Go to next marker
728	[Control][⇧][%5]	Go to previous marker
729	[Control][%5]	Previous find
730	[Control][< ,]	Back one paragraph
731	[Control][> .]	Forwards one paragraph
732	[Control][(9]	back one page
733	[Control][) 0]	Forward one page
736	[Control][^6]	Find next
737	[Control][$4]	Insert on/off
739	[Control][H]	Soft hyphen
740	[⇧][→|]	Move to next tab
741	[⇧][Del→]	Delete word right
742	[Control][£3]	Delete line
743	[Control][? /]	Convert to upper case
744	[Function][Del→]	Delete block
746	[Function][) 0]	Copy block
747	[Control][ ]	Insert space
748	[⇧][↵]	Move to start of next line
752	[↑]	Cursor up
753	[↓]	Cursor down
754	[Word ←]	Cursor left
755	[Calc →]	Cursor right
756	[⇧][↑]	Scroll up one line
757	[⇧][↓]	Scroll down one line
758	[⇧][Word ←]	Move word left
759	[⇧][Calc →]	Move word right
762	[Control][Word ←]	Move to start of line
763	[Control][Calc →]	Move to end of line
764	[Stop]	Back out one level
74	[Secret Menu][M 0]	Record macro
76	[Control][⇧][L 3]	Line drawing mode on/off
88	[Symbol][D]	Current date
89	[Symbol][T]	Current time
94	[Secret Menu][S][B]	Insert bold code
95	[Secret Menu][S][C]	Insert condensed code
97	[Secret Menu][S][E]	Insert elite code

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841	[Secret Menu] [S] [I 5]	Insert italic code
843	[Secret Menu] [S] [L 3]	Insert enlarged code
848	[Secret Menu] [S] [P x]	Insert proportional code
849	[Secret Menu] [S] [Q]	Insert quality code
851	[Secret Menu] [S] [S]	Insert subscript code
852	[Secret Menu] [S] [T]	Insert superscript code
853	[Secret Menu] [S] [U 4]	Insert underline code
915	[Secret Menu] [E] [C]	Choose character
919	[Secret Menu] [B]	Print block
922	[Secret Menu] [E] [R]	Remove word from user dictionary
931	[Secret Menu] [E] [V]	Display user dictionary
933	[Secret Menu] [E] [B]	Count words in block
938	[Secret Menu] [T] [H ₋]	Non break hyphen
939	[Secret Menu] [T] [N ₋]	Non break space
940	[Secret Menu] [T] [M 0]	Insert multiple marker
983	[Secret Menu] [D]	Display macros
984	[Secret Menu] [H ₋]	Create header
985	[Secret Menu] [F]	Create footer
987	[Secret Menu] [P x]	Print to screen
990	[Control] [P x]	Insert page break
991	[Secret Menu] [T] [F]	Format text

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Troubleshooting

If you do have difficulties when using your Notepad always refer to this User Guide first to try to find the solution.

Problems	Possible Solutions
I switch on but nothing shows on the screen.	- Check that batteries are installed. - Adjust the contrast control. - If using batteries disconnect AC Adaptor from Notepad. - If using mains power check AC adaptor is connected properly.
The Notepad switches itself off when I'm not looking.	- this is a normal feature, designed to help conserve your batteries, you can adjust the time delay before power off
I have set a password but forgotten it, what do I do?	- Refer to the relevant section in the user guide.
I think my Notepad is running out of memory, what do I do?	- Delete some of your old documents
Is there anything I can do to increase the memory?	- Standard JEIDA/PCMCIA Memory Cards will expand the Memory by up to 1MB
Sometimes when I'm typing a document, it disappears and other things appear on the screen.	- Press ⌷ to return you to the document. You have accidentally invoked a command, possibly by pressing ⌷ instead of ⌷.
The calculator does not work in the same way as my pocket calculator	- There is no single standard for how a calculator should work, some pocket calculators do work like this.

Problems	Possible Solutions
The clocks have changed, but how do I change the time and date on my Notepad?	- You can change the time and date in the System Settings menu. See System Settings.
I can't print £ signs	- Make sure your printer and Notepad are set to use the IBM character set before you print.

If you have changed the System and configure settings but wish to revert to the original default settings you can do so using "Soft Reset". Before switching off finish what you are doing by pressing [Stop] (otherwise your current work in document or address book will be lost) then hold down [Function] and [Stop] together and switch the Notepad on, you will hear a "beep" if the reset is successful.

Hotline Support

If, on unpacking your Notepad, it will not function at all It should be returned immediately to your dealer for replacement.

As the Notepad is a very sophisticated item, you may find you need personal assistance when learning how to use it that a user guide cannot provide; our Hotline Support can provide further tuition. Dial the Hotline Support on 0891 808181.*

From September to the end of January:

Monday - Friday	9.00 am - 8.00 pm
Saturday	10.00 am - 7.00 pm
Sunday	11.00 am - 5.00 pm

All other times of year:

Monday - Friday   9.00 am - 5.00 pm

*Because the hotline is an additional tutorial service the calls are charged at the Premium Rate. At the time of printing the Premium Rates are 48 pence per minute at peak times and 36 pence off-peak.

the product described in this manual and products for use with it are subject to continuous development and improvement.

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All correspondence relating to the product or this manual should be addressed to:

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Amstrad plc
PO Box 1831
BRENTWOOD
CM14 4ER

Spellchecker by Proximity
The Proximity/Collins Linguibase

BASIC written by Richard Russell

All other software designed by Alan Sugar, Cliff Lawson and Arnor Ltd and written by Arnor Ltd.

Written by Alan Sugar, Cliff Lawson and Sue Maybee
Typeset by Janet Kiddier.

Published by AMSTRAD plc

New product guarantee

Congratulations on purchasing a fine AMSTRAD product. To mark our confidence in your new AMSTRAD product, which has been fully tested and inspected, it comes with this guarantee; the details of which are set out below. This guarantee is in addition to, and does not reduce, your minimum statutory rights.

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    (a)In the event of any manufacturing defect in materials or workmanship in any part of your AMSTRAD product (except consumable items such as tapes, discs, films, etc.) becoming apparent within 12 months of the date of original purchase or hire purchase of your new AMSTRAD product, you must return it at your own risk and cost to the dealer from whom it was purchased, within the 12 month guarantee period.

    (b)The dealer will repair or replace any defective part covered by this guarantee free of charge.

    (c)When the product is repaired, you will be responsible for collecting it at your own risk and cost.

3. If maintenance, service work or adjustments are required, ensure that it is performed by a qualified engineer to avoid damage that will not be covered by this guarantee.

4. You must keep your original purchase receipt as proof of place, date and type of purchase. It must be produced when required.

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Large and delicate items

7. Customers owning large or delicate products which are not easily or safely transported are advised to purchase on-site service contracts from their dealers at point of sale.

Please complete and return the Product Registration Card now to register your guarantee

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