User Guide

TORCH
COMPUTERS

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Introduction

Your new TORCH computer has been designed to meet the demands and pressures of businesses of the '80s, both large and small. It will handle all possible office procedures – from word processing to financial planning and stock control. It will also communicate by telephone and telex with other offices and computers, both nationally and internationally.

This manual explains how to start making your TORCH work for you. It has been written for people who have no experience or training in using computers and, by following each section step by step, you should be able to start using your TORCH from the day it arrives.

When you have read this manual you should know how to

unpack your TORCH
assemble it
switch it on
use the keyboard
give it some simple commands
start a program running
load, look after and copy floppy discs
sort out minor faults
link up a printer, if you have one.

The guide also gives you a list and explanation of many of the jargon terms and abbreviations you will come across when reading about the computer, and the meanings of messages that appear on the screen which you might at first find confusing.
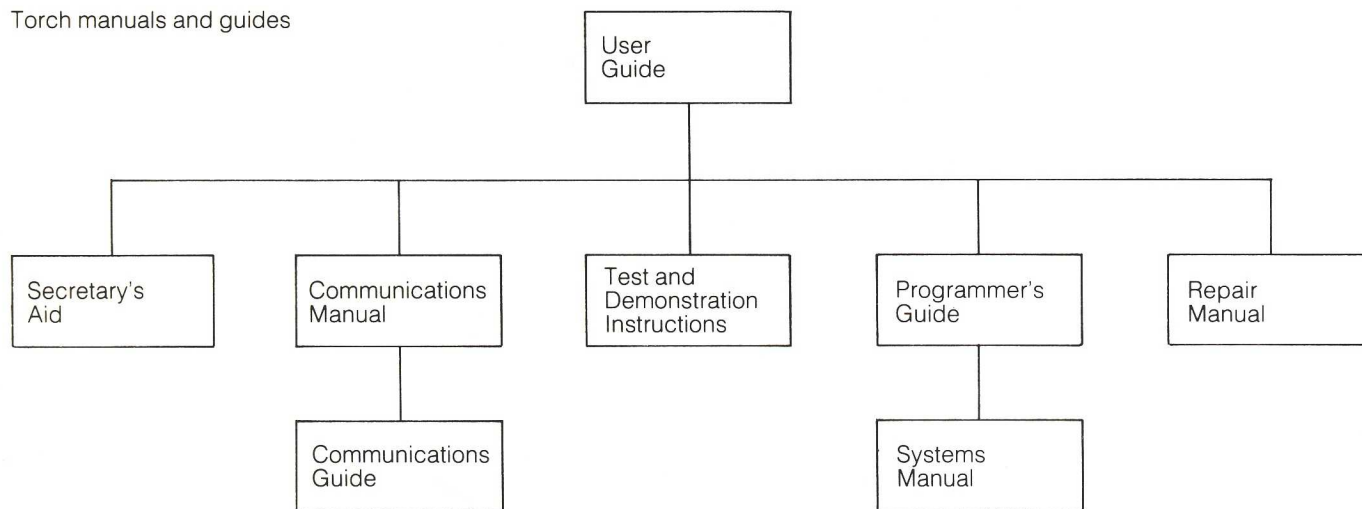
If you have not had experience of using a micro computer, follow the guide carefully. Do not be afraid to practice typing out instructions onto the keyboard, or of making mistakes – the TORCH will tell you if it does not understand and errors are easily corrected. Where special care should be taken, for example, in looking after discs and making sure you don't wipe out programs or stored information unintentionally, clear warnings are given in the guide.

If you have any problems you cannot sort out, contact your dealer. He is there to help you.

Manuals

This manual will not teach you how to program the computer or how it works. More detailed manuals have been written for those experienced in the techniques and equipment, as shown in the chart below. There are also manuals and information sheets to go with each of the programs you will use.

Torch manuals and guides

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TORCH
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Contents

Some terms you need to know

Before you read any more of this guide you need to understand a few basic concepts which will be referred to in later pages. To use the processing power of the computer you have to give it instructions. This is done using *programs*, which are sets of instructions written in a logical way to tell the computer what to do.

Programs which have been written to perform a particular function, such as word processing, are called *applications programs*.

One program controls the function of the computer itself and has been built into the TORCH. This is called an *operating system*. The TORCH operating system is known as CPN and this is compatible with CP/M,* which was written by Digital Research and will be familiar to those who have used micro processors before.

The operating system does not have to be put into the computer on a disc, because it is permanently stored in what is called *Read Only Memory* (ROM). This is part of the computer's memory which cannot be altered by instructions from the keyboard.

There is an explanation of some additional terms you may come across in the Glossary on page 35.

*CP/M is a registered trademark of Digital Research

Setting up your TORCH

This section deals with how to unpack, set up and switch on your TORCH.

Unpacking your TORCH

Unpack your TORCH carefully keeping all the packing materials. You should use these again when the TORCH is moved over long distances or returned for servicing.

Check that you have the following items:

Equipment: TORCH computer – main unit
with video screen
TORCH keyboard
2 floppy discs

Manuals: Programmer's manual, which tells you
how to write programs for the computer

Secretary's aid manual, which describes how to use the word processing program supplied with the TORCH

Communications manual, which shows how the TORCH can communicate by telephone or with other computers

TORCH reference card, which records on a single card some of the most important things you will need to remember when using the computer.

You may also have bought some extra items:

Hardware: TORCH compatible printer, the most
common extra piece of equipment

Blank floppy discs
(see page 19 for specification)

Software: TORCH application programs, written to
do a specific job, such as stock control.

Discs and manual on languages

Application programs for
CP/M microcomputers.

Manuals: Repair manual

Systems manual

BBC micro computer user manual, since your TORCH is fully compatible with BBC BASIC programs.

NOTE: When you have unpacked your TORCH you will see that there are cards in the slots on the right of the screen. These protect the disc heads with which the computer reads the floppy discs. Take them out and keep them with the rest of the packing materials. Open the disc drive doors just as you would an up and over garage door and leave them open until you are ready to insert a disc.
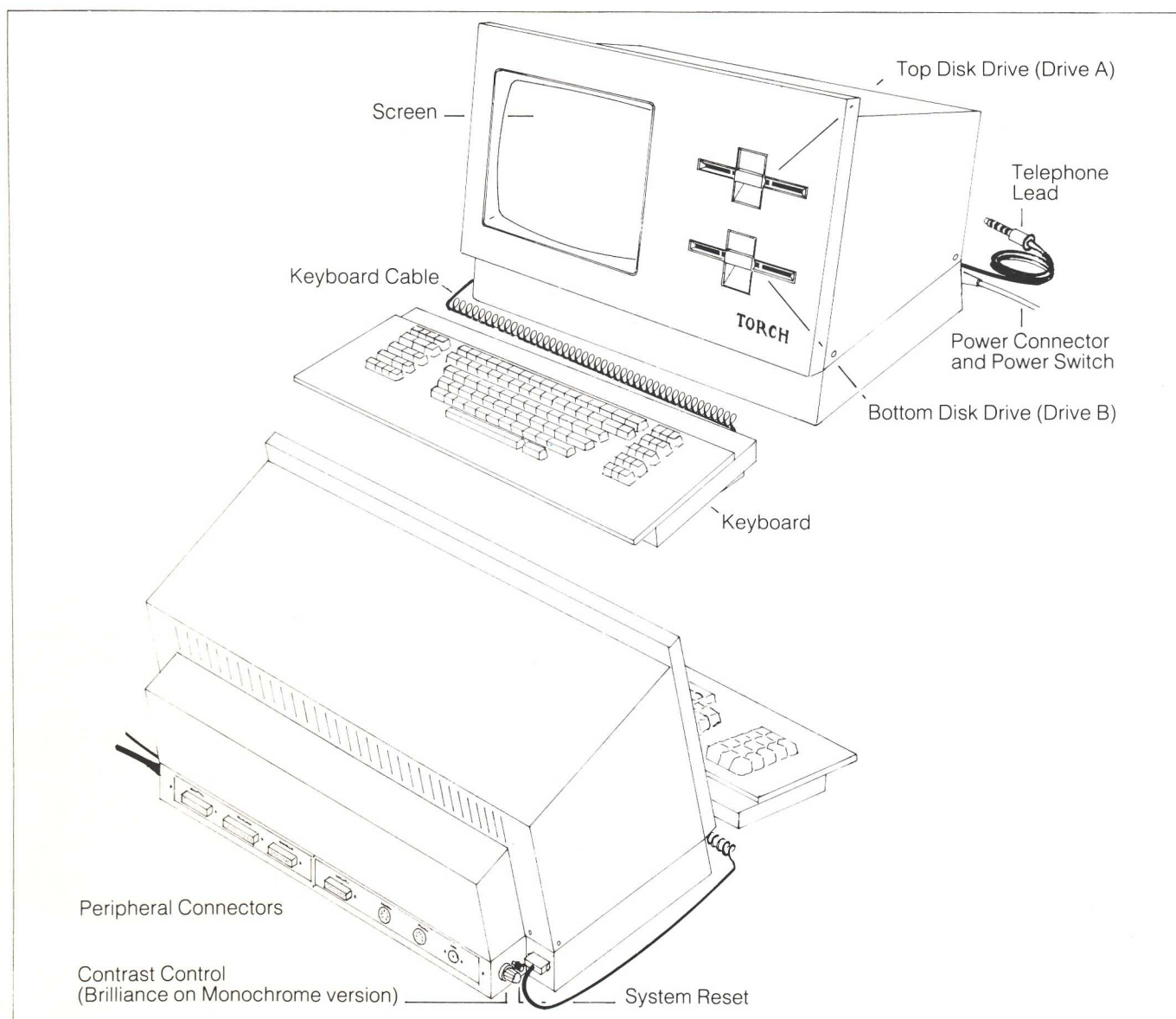
Setting up

Now that you have unpacked your TORCH and made sure that you have all the components, you are ready to assemble the system.

Put the main module, which contains the screen and processing power of the system, on a firm surface at normal desk height. Avoid soft or spongy surfaces, such as a typewriter pad, as these will restrict the flow of air round the computer.

Make sure the TORCH is near an ordinary electric wall socket. If you are going to use the TORCH as a link with other locations and computers, you will also need a telephone point nearby.

The TORCH is designed to operate in a normal office environment and should not be kept in a place which is excessively dusty or dirty, or where the temperatures drop to less than 15°C or more than 30°C.

Once you have positioned the main unit you can plug in peripherals, such as the printer at the back.

Screen

Top Disk Drive (Drive A)

Telephone Lead

Keyboard Cable

TORCH

Power Connector and Power Switch

Bottom Disk Drive (Drive B)

Keyboard

Peripheral Connectors

Contrast Control
(Brilliance on Monochrome version)

System Reset

Attaching the keyboard

Next put the keyboard in front of the screen so that it is comfortable to use as a typewriter and plug the curly cable which comes from the keyboard into the socket at the back left hand corner of the main module.

Switching on

Now the main units of your TORCH are connected up you are ready to switch on the power.

1   Make sure that the main power switch at the back of the TORCH and the switch on the wall socket are both turned off.

2   Plug the mains power cable into the connector at the back of the main unit and plug the other end into the wall socket.

3   Make sure that the circuit breaker on the connection into the TORCH is pushed in. This acts as a fuse and can be reset easily if it 'blows'.

4   Check that the keyboard and mains cable are connected correctly and both disc drive doors are open.

5   Turn the power on at the wall and then at the back of the TORCH.

Euroconnector

Circuit Breaker

Power Switch Off and Plug out

Power Switch On and Plug in
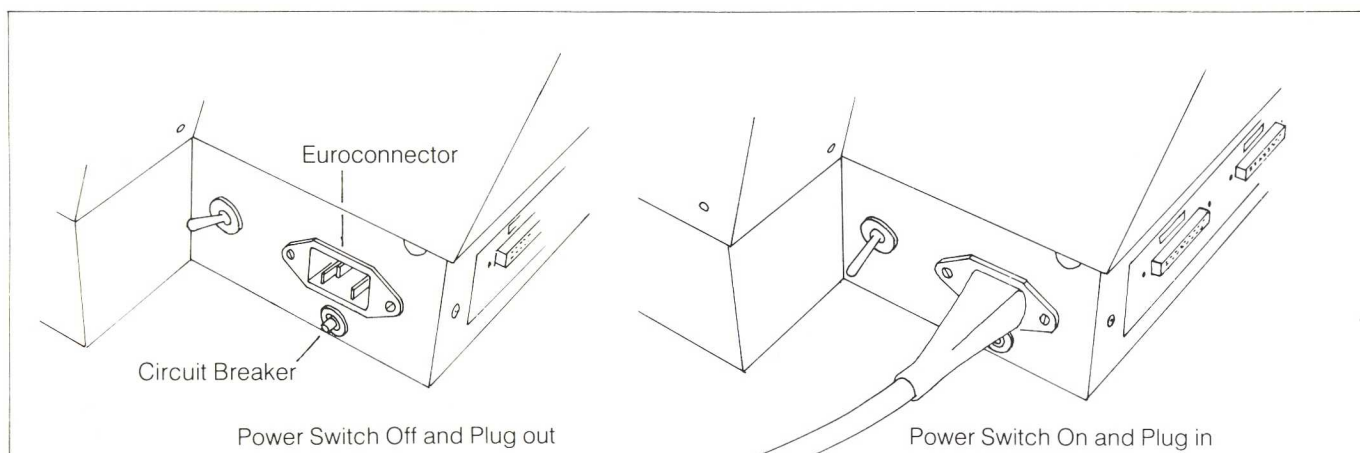
NOTE: If you have to rewire the plug on your TORCH at any time remember that the wire colour codes are: brown = live, blue = neutral and green/yellow = earth.

Your TORCH will now carry out an automatic self test. This takes about a second and the computer will emit two 'beep' sounds to show that everything is as it should be. You may also hear a faint humming noise from the internal fan.

After the screen has warmed up (about 20 seconds), the screen will display the message:

```
TORCH Computer System
0A>
```

Your TORCH is now ready for use. Check that the processor and keyboard are working by carrying out the following test.

Type: H

Screen: 0A>H

Press: `return`

Screen:

```
The following built-in commands are available under Torch CCCP Version 0.83.

B, BACKGROUND     Colour number.
BASIC             Enter BBC Basic.
C, COMMAND        Filename arguments.
COPY              Filename TO Filename.
DEL, DELETE       Filename — Be Careful.
DIR, DIRECTORY    List of filespecs, [options].
DUP, DUPLICATE    a disc.
F, FOREGROUND     Colour number.
FORMAT            Floppy disc — Warning: Destroys old contents.
H, HELP           This command.
INPUT             Filename from keyboard.
KEY               number text.
MODE              number for screen.
PRINT             Filename.
REN, RENAME       Filename AS Filename.
TYPE              Filename onto screen.
USER              New user number (0-31).
VDU               List of character numbers, separated by commas.
VIEW              Filename containing graphics.

Type 'DIR *.COM' to list other commands
0A>
```

This is a list of instructions, called commands, whose uses are explained later in the guide.

NOTE: Those familiar with CP/M operating systems will be aware that many such systems require a special disc to be inserted before the computer can interact with the user (known as 'booting'). This is not necessary with the TORCH, so that you can use the processor without inserting a disc (or with faulty disc drives). This feature also makes more disc space available for program use.

Switching off

It is important that the power supply is not switched off accidentally. If this does happen all the information keyed into the machine which is not on disc will be lost. Occasionally damage can also be done to a disc which is in a disc drive.

If you do have to switch the power off, or have prior warning of a power cut, make sure that data you wish to retain has been copied onto a disc and that this has been removed from the drive. (See pages 20 and 26).

To help make sure that no one switches off the computer at the wall by mistake, mark the plug clearly.

Communicating with your TORCH

Using your TORCH is a two-way process. You communicate with it through the keyboard and it responds via the screen. If the machine cannot understand your instructions it will say so, for example, if you ask it for a file which is not on the disc you are using the screen will give the message:

File not found

If you are not sure what to do next you can ask the computer for help, using the HELP command

The Keyboard

Before you can use the TORCH you need to become familiar with the layout and function of the keys on the keyboard.

The TORCH keyboard is like that of a normal typewriter, with some extra keys. Unlike a typewriter, however, the function of some of the keys can change according to which program is running. Details of this are given in the manuals and leaflets which accompany the programs.
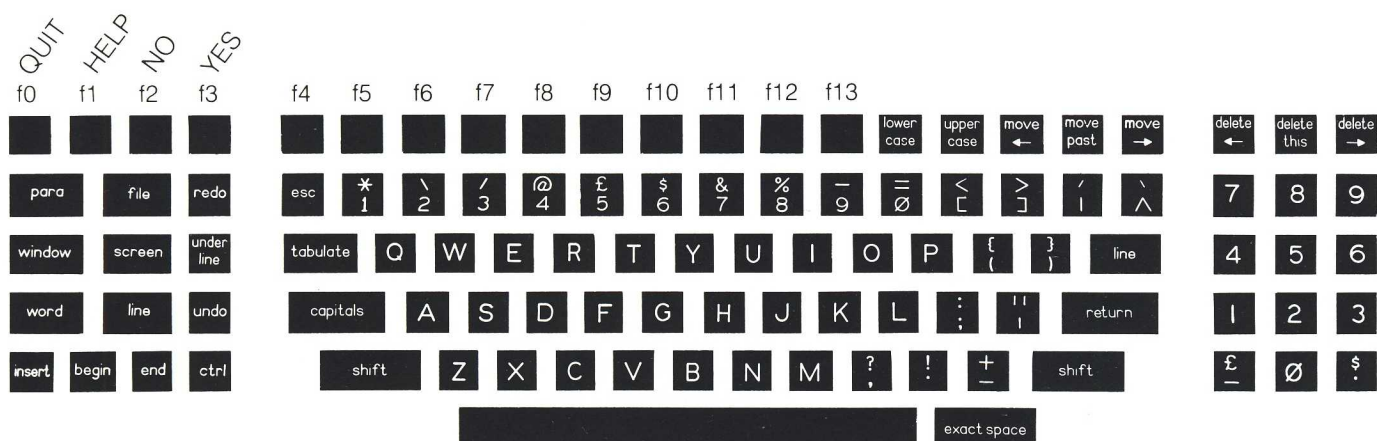
There are two special features you should be aware of:

1   Auto repeat

If you hold down a key it will repeat itself automatically, like the underlining key on an electric typewriter.

2   Type ahead

If you type into the TORCH when it is processing other information there may be a delay before the characters appear on the screen.

You will find the following keys on your keyboard.

Function Keys

There are 14 unmarked blue keys along the top of the keyboard, which are used to perform specific functions. When you receive your TORCH the first four from the left are already programmed to indicate

QUIT   HELP   NO   YES

Pressing these will therefore have the same effect as typing out these instructions (or commands) in full. Some programs may change these meanings and you can reprogram them yourself, if you wish to, at a later stage.

The remaining blue keys can be set up to perform specific functions you find useful, as described on page 15.

Letter Keys

These function as on a normal typewriter unless you are using a program which says otherwise. They can be used for both capitals (upper case) and small (lower case) letters.

Number Keys

Those in the row above the letters are also used as in a normal typewriter. The numbers are repeated, however, in a block on the right hand side to make it easier to type tables and schedules of figures quickly.

`return`

This is a very important key. It is usually used to tell the computer that you have finished preparing a piece of text or keying in a command.

When you have typed in a command (see page 14) you must then press the return key. If you do not do so the computer will not respond.

Example: To use the HELP command

Type: HELP `return`

Some programs use the return key differently and this will be explained in the program instructions.

`shift`

The two shift keys, like those on a typewriter, make the letters appear in upper case and any other keys produce the symbol on the top of the key. To do this you must hold the shift key down for as long as is needed.

Example: To type TORCH

Press and hold: `shift` Type: TORCH Release: `shift`

|	
`capitals`	More useful is the capitals key which converts only the letters into upper case and doesn't change the function of the number and symbol keys. To use it press the key once before typing the text you wish to appear in upper case and then press capitals again when you wish to return to lower case. Example: To type TORCH Tap: `capitals` Type: TORCH Tap: `capitals`
`delete ←` and `delete this`	Both these keys normally remove the last character which was typed and move the cursor back one place.
`delete →`	The meaning of this key depends on the program that is running at the time.
`tabulate`	This moves the cursor, and therefore the next character typed, on to the position of the next tab, as you would find on a normal typewriter. The tabs are normally set at positions 8, 16, 24 etc but this may vary according to the program. The total number of characters across the screen is 80.
`esc`	This is the 'escape' key which has a meaning dependent on the program being used. Example: Using BBC BASIC pressing `esc` stops the program running.
`exact space`	The meaning of this key also depends on the program. Example: In some word processing programs it tells the computer where to hyphenate a long word.
`move past` , `move →` , `move ←` , `upper case` and `lower case`	These keys are used to move the cursor about the screen, particularly when editing, and to copy characters from one position on the screen to another. Again their function may be changed by the program being used.
`ctrl`	The control key is often used to change the function of other keys when using different programs, for example, the editing keys. It is also used to tell the computer when you have loaded a new disc by holding down the control key and pressing C.

Editing Keys

The 12 keys marked with the following words are used by application programs and their action will be explained in the manuals which come with each program.

file	redo

window	screen	under line

word	line	undo

insert	begin	end
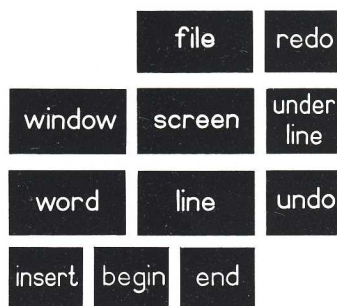
The Screen

The screen displays both the text you are typing into the keyboard and the messages the computer wishes to give to you. You will soon become familiar with the way information is displayed, though this may seem unusual and confusing at first.

The screen has space for 80 characters from left to right and 25 from top to bottom, though this can be changed if required.

By means of the screen you can find out what is on the discs you put into the disc drives. You can ask the computer to display a list of files, contents of specific files, sections of text or program instructions. How to do these is explained later in the guide.

On page 32 you will find some of the messages which often appear on the screen and what they mean.

Built-in commands

A command is a single word with which you tell the computer what you want it to do. Several of these have been built into the TORCH so that by typing a specific word you can bring about changes on the screen, or affect the information stored on disc.

When the TORCH was first switched on, it automatically ran a program called the 'console command program' or 'CCP' which allows the user to enter commands and the computer to respond.

This resulted in the message

0A>

appearing on the screen.

This is called a prompt and will always consist of

number letter >

where the number and letters may vary.

Commands usually consist of a word of one to eight letters with, possibly, a space and more text on the same line.

Entering a command

To use a command type the appropriate word on the keyboard and press return .

You can use upper or lower case letters or a combination of the two.

Example: HELP   Help   help
            will all give the same result.

Some commands can also be abbreviated. If so, the abbreviation is shown by the capital letters in the command list given on your reference card or by the computer itself when you type H return .

Example: DELete can be abbreviated to DEL

NOTE: If you make a mistake when typing a command use delete ← to rub out one character at a time. If you mis-spell a command and do not correct it the computer may think you are referring to something on a disc, for example, a text file, and will scan to find it. It is useful therefore to put in a disc so that it has something to scan (See page 19). If it cannot find what you have typed in it will produce the message

File not found - 'FILENAME'

There are two types of command covered in this guide

Simple commands:

these are built into the computer and will operate whether or not a disc is in position.

Disc commands:

these are also built in and are used to look at and manipulate information stored on disc.

Simple built-in commands

This section deals with the seven simple commands, while the disc commands are covered later in the guide.

Help

Type: HELPor H `return`

This will produce a list of the commands available and the information they expect.

F

The command F is used to change the colour of the characters on the screen – known as the foreground. The colour is indicated by a number from 0 to 15 as follows

0	Black	8	Black/White flashing
1	Red	9	Red/cyan flashing
2	Green	10	Green/magenta flashing
3	Yellow	11	Yellow/blue flashing
4	Blue	12	Blue/yellow flashing
5	Magenta	13	Magenta/green flashing
6	Cyan	14	Cyan/red flashing
7	White	15	White/black flashing

Example:

Type: F 1 `return` sets the foreground to red.

NOTE: If the screen appears to go blank you have probably set the foreground to the same colour as the background so that you cannot see what you type.

B

This is used in the same way to change the background colour and uses the same codes.

Example:

Type: B 6 `return` sets the background to cyan.

✴Key

This command is used to program the 14 blue function keys along the top of the keyboard. These are numbered 0 to 13 from left to right, but are unmarked on the keyboard.

Programming these keys is very useful if you have a function you wish the TORCH to perform frequently, or a piece of text you have to type often, for example your company's name and address.

To use the ✴KEY command

Type: ✴KEY number string `return`

where   number = the key you wish to program
string = the characters you wish the key to represent

Example: If you wished the third key to produce the name FRANCIS

Type: ★KEY 2 FRANCIS `return`

(remember that the keys are numbered 0 to 13, not 1 to 14).

There are two other aspects of using the ★KEY command which you need to be aware of. These are how to:

include spaces in the string, and

include a carriage return in the string, remembering that pressing `return` normally tells the computer that the command is finished.

Including 'Leading Spaces'

To include spaces at the beginning of the string you must enclose the whole string in quotes. This tells the TORCH where the text begins and ends, otherwise it will ignore the spaces.

Example: To set key 0 to produce
— — — — 1234 — — — —

(spaces are represented by '—')

Type: ★KEY 0 "   1234   " `return`

If you wish to include a quote within the string you will need to press the quote key twice.

Example: To set key 8 to produce
— — — —"XXXX"— — — —

Type: ★KEY 8 "   ""XXXX""   " `return`

Including carriage returns

If you wish to include carriage returns in your string you have to have another way of telling the TORCH to make a carriage return, since to press return will close the command.

To do this you can use ¦M to mean carriage return where ¦ represents the character on the bottom of the key ¦ .

Example: To set key 5 to set the foreground colour of the screen to dark blue and the background to light blue

Type: ★KEY 5 F 4 ¦MB 6 ¦M `return`

Pressing key 5 then gives: F 4 `return`
                               B 6 `return`

Mode

The MODE command allows you to change the format of the screen. This means that you can increase or decrease the character size.

To use a MODE command

Type: MODE number `return`

Where the number shows the format you wish to use and will be from 0 to 7.

Modes are explained more fully in the Programmer's Guide.

The codes for the different formats are as follows

0	80×32 text	4	40×25 text
1	40×32 text	5	20×32 text
2	20×32 text	6	40×25 text
3	80×25 text	7	40×25 teletext display

In this table the first column is the number of characters on a line and the second the number of lines on a page. The Teletext display is the mode used for the British Telecom PRESTEL System.

When you first switch on the power the TORCH appears in mode 3 and this, together with modes 0 and 7, is the most useful.

Once you have issued a MODE command this will apply until

a new MODE command is given

an application program changes the screen mode

the Master re set button at the back of the TORCH is pressed to stop a program running.

NOTE: Changing the mode clears the screen completely.

VDU

The VDU command also changes the screen configuration. It is a very powerful command, but it is not necessary to master it when you are first experimenting with your TORCH. Once you are more familiar with the computer you will find it easier to use.

To use the VDU command

Type: VDU number,number,number `return`

The numbers you key in tell the computer what you wish it to do. Numbers from 0 to 31 have special meanings which are given in the Programmer's Guide. Numbers from 32 upwards represent the characters they would normally represent.

Here are a few of the most common examples.

Example: VDU 12 `return` clears the screen.

Example: VDU 7 `return` will sound the bell.

Example: VDU 14 `return` Will tell the screen to stop scrolling (moving on from line to line) a page of text and wait for you to press shift before moving to the next page.

Example: VDU 15 `return` causes the screen to go back to scrolling normally and is used to cancel the effect of VDU 14.

★ FX

This is used to select the type of printer in use, to change the flashing rate of the screen, and to select various other options, which are described in full in the Programmers Guide.

To use the ★FX COMMAND:

Type: ★FX number, number `return`

Example: To turn off any printer which is connected to the computer

Type: ★FX 5,0 `return`

Abandoning a program

Before looking at the various ways of using programs on your TORCH you need to know how to stop a program running if something is amiss. If a program running on the TORCH is faulty, or, for some reason it fails to respond to what you type on the keyboard, you must make the computer go back to receiving commands.

Example: If you are using the word processing program and you try to type in a command this will simply appear on the screen as part of the text. If the program is not working properly you should abandon it.

NOTE: This should only be used as a last resort as any files you have made may be lost.

To abandon a program:

hold down `esc` then press `shift` and `ctrl` together.

The computer will respond with the normal prompt

0A>

Alternatively you can press the master reset button at the back of the TORCH. This abandons the program and also clears the screen.

Master Reset Button

Contrast Control   Keyboard Connector
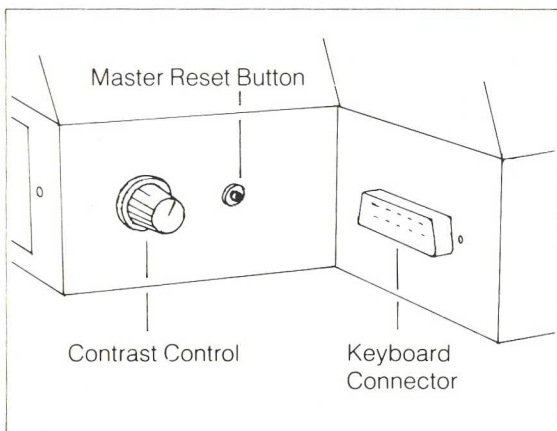
Using your TORCH

Your TORCH can help you in a wide variety of applications using different programs. You will have received several programs on the floppy discs which came with the computer and others are available from your dealer.

You can also, of course, write programs for your own specific applications and a manual on how to program the TORCH is provided with the computer.

Floppy discs

Most of the data and programs used on the TORCH are kept on mini floppy discs. These are thin circular plastic sheets coated with a magnetic compound to enable them to store data. Each disc holds 400K Bytes of information – enough to hold some 100,000 words or ten copies of this guide.

The discs are enclosed in a protective jacket, and the disc plus jacket can be called a diskette, floppy disc, or simply disc or disk.

Buying new discs

Your TORCH uses very high capacity discs with the following specification

80 tracks (96 tracks per inch)

double sided

single density (800K TORCH drives require double density discs)

soft sectored.

To give this large capacity it is important to use top quality discs and your TORCH dealer will advise you on the best brands to buy.

NOTE: When you buy extra programs always make sure they are for CP/M systems. If you buy a program for a different type of computer it may not work on your TORCH.

Loading a disc

Before you can use the programs supplied with your TORCH you have to insert a disc into one of the disc drives. There are two of these on the right of the screen, one beneath the other, known as drive A and drive B.

When using only one disc you will usually use drive A (the top drive), and when copying one disc onto another you will have a disc in each drive.

To load a disc

1   Check that the drive door is open.

2   Remove the disc from its envelope taking care to hold it only by its protective jacket.

3   Slide the disc into the slot with the label on the top surface and on the edge nearest to you.

4   When the whole of the disc is inside the drive press the door closed until it catches. If the door does not close properly the disc may not be fully inserted.

Loading drive B
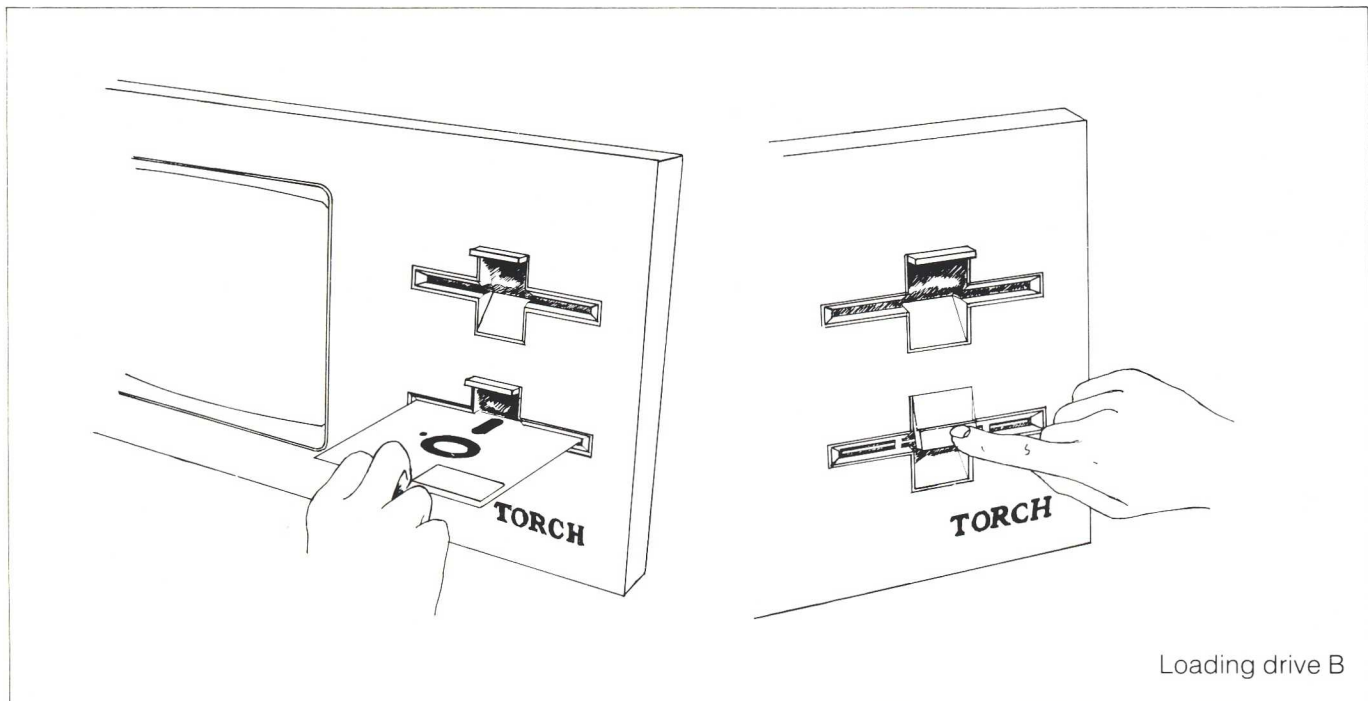
As the door closes, a clamp is lowered internally to grip the centre of the disc. It will spin it to centralise the disc making a short whirring noise.

Now that your disc is in position

Hold: ctrl   Press: C

This tells the computer that it has a new disc to look at.

You are now ready to work with the disc.

Looking after your discs

To make sure your discs are kept undamaged and in good condition, and that your data is safe, follow these simple precautions.

1   When completing the contents label on the jacket use only a soft felt tipped pen. Pressure could dent the disc and spoil it.

2   Do not touch the exposed parts of the disc as finger prints and dust could damage the surface.

3   Do not put the disc near magnetic fields such as those found near power supplies, electronic equipment or loud speakers.

4   Do not subject the disc to temperatures above 50°C or direct sunlight.

5   Keep the discs in a dry atmosphere as dampness can damage them.

6   Do not bend the disc more than you have to.

7   Do not turn the power off and on while the discs are in the drives, unless the drive doors are open.

Formatting a disc

Before you can store information on a disc you need to go through a process called 'formatting'. This is a bit like putting primer on wood before painting it – it is a process which prepares the disc to receive data. The TORCH has a built in command to do this.

You would use the FORMAT command when

using a new disc, or

erasing all the information on an old disc to use it for something else.

NOTE: Formatting completely wipes the disc concerned so that you must be very careful that it is the right disk. As a double safety check you should make copies of the discs supplied with your TORCH, and any other important discs you buy or make, to be quite sure that you don't completely lose the data on them by mistake.

To format a blank or unwanted disc:

Type: FORMAT `return`

Screen: Enter drive to Format

The TORCH is now asking you whether you wish to wipe the disc loaded into drive A or that in drive B.

Now type: A   (or B)

The computer will now wipe the disc, which will take some time, and a red light will come on to show which drive is being formatted.

NOTE: **To safeguard against formatting an important disc you can use a write-protect tab as explained on page 22.**

If a key other then A or B is pressed the formatting will not take place.

Screen: Format abandoned

Making back-up discs

Because of the danger of losing valuable information (and a lot of hard work) through discs being damaged or data being accidentally removed, it is strongly recommended that you make copies of such discs as safe records.

To start with you should copy the two discs which came with your TORCH so that you can practice using these copies without running any risk of losing the information stored on them.

It is also recommended that you acquire the habit of making back-up copies of the discs you have been using at the end of each day. It does not take long and, since you can re-use the discs as often as you wish, neither is it as extravagant as it may at first appear.

To duplicate a disc

1   Put the disc to be duplicated (called the 'source' disc) into drive B.

2   Put the blank disc (called the 'destination' disc) into drive A. The disc need not be formatted as this will happen automatically.

3. Type: DUP return

4   Follow the instructions which appear on the screen.

Write-protecting a disc

You will see that the discs which came with your TORCH have a small piece of adhesive paper at one side. This is another device to prevent you accidentally wiping the information off the discs. It is known as write protection.

The adhesive paper covers a small notch in the disc jacket. When this is covered the computer is unable to put information onto the disc, but can only read it. If you try to write on this disc the screen will show the message

Disc A is read only!

and give a short 'Beep' sound.

When you have made your back-up disc you should stick the write protected patch supplied with the blank disc over the notch. This done, with the copy safely put away, you can use the disc for general work, knowing the data is safe.

Write
Protect
Notch

Files and filenames

When you key information into the computer for storage on a disc you 'open a file' on the disc. This file has to have a name so that you can give the computer instructions about it, such as to print out the file or display it on the screen and identify it by name.

A file name is made up of

1 to 8 characters
or 1 to 8 characters . 1 to 3 characters

where a character is one of the following: a letter from A to Z, a number from 0 to 9, £,$,%,&,–,/.

Example: FRED9
              JMB/RA
              DEMO-1
              TORCHTEL.COM
              Z.X
              LETTER.001

Within these limits you can name your files according to your own system. Any names that do not conform would be considered invalid by the computer.

Example: LONGSTRING (more than 8 characters)
              NORMAL.LONG (optional extension more
                                  than 3 characters)
              ZED:ALP   (colon not allowed)

Using ambiguous filenames

Where you wish to include a file within a certain group without giving it a precise name you can use what is called an 'ambiguous' file name. This makes use of two characters

? and *

rather as if they were blanks in a scrabble set. That is, they can mean anything.

? in any position in a file name means 'any character'

Example: FRED.??? means
              FRED.COM FRED.X or a FRED file
              with any other optional extension.

* in any position has the same effect but it can mean any number of characters.

Example: *.COM means all files with a .COM
              extension

              . means all files

Built-in disc commands

In the section on **Simple built-in commands** we looked at instructions which had been programmed into the computer so that when a certain command word was keyed in action resulted. This was to save time and avoid typing out lengthy instructions.

The same thing applies with the use of discs and there are certain commands which can be used to tell the computer to, for example, list the names of the files stored on the disc or change the names of these files.

Two of these disc commands have been dealt with already, namely

FORMAT

DUP

Also included here are some of the other commands which you will most frequently wish to use. There are many more, and you can program the computer yourself to carry out specific disc commands which you require. An explanation of how to do this is found in the Programmer's Manual.

NOTE: **Whenever you type in a command, you must press the `return` key to tell the TORCH that you have finished the command.**

The following are the most commonly used built-in disc commands.

DIR

Each disc can hold up to 256 files depending on their size. The names of the files and details about their size and position are kept in a directory on the disc.

The DIR command is used to display the list of the files on a disc on the screen.

To list the names of all the files on the disc

1   Load the disc into the disc drive

2   Type: DIR `return`

This will display the files in the top drive (drive A)

Example:
```
A:DEMO     .TXT   FETCH    .COM   FILES     .
A:GRAPH    .COM   SERVE    .COM   NOTES     .
```

To list the names of all the files on disc B

Type: DIR B: `return`

Displaying a named file

If you wish to display information on a named file

Type: DIR filename `return`

Example: To display information on the file named GRAPH.COM

Type: DIR GRAPH.COM `return`

DIR commands using ambiguous filenames	The DIR command is particularly useful when used with ambiguous filenames to give a list of files with similar names.

Example: DIR ∗.COM will give a list of all the files with extension .COM

Example: DIR LETTER.∗ will give a list of all files with main name LETTER

NOTE: DIR alone is equivalent to DIR ∗.∗

DIR options	To find out more information about the files on a disc you can use what are called DIR options. These are the single letters P,L and S which have the following meanings:

P means indicate which files are write-protected

L means give the length of each file in kilobytes

S means give the space used on the disc so far

These are used by typing them after the DIR command and filename and enclosing them in square brackets.

Example: DIR [P] tells you which of the files on the disc are protected

Screen:

```
DEMOTEXT.    r/w   FETCH   .COM r/o  SERVE   .COM r/o  TEXT     .      r/w
```

r/w means read and write
r/o means read only (write protected)

Example: DIR LETTER.∗ [L] gives all the files with the main name letter and their sizes in 1000's of characters (K).

Screen:

```
LETTER  .DCO    2K  LETTER  .JT    3K  LETTER  .R    23K
```

Example: DIR B: [S] will give the space free on disc B

Screen: `Space left on B:  140K`

Example: DIR [LP] would give the sizes of all files on the selected disc and whether they were protected.

TYPE

If you wish to see the text in a file you use the Type command.

To use the command

Type: TYPE filename `return`

Example: To show the text in one of the files on the disc supplied with your TORCH, called DEMO.TXT

Type:

TYPE DEMO.TXT `return`

Screen:

abcdefghijklmnopqrstuvwxyz

This command can be abbreviated to T

Example: T DEMO.TXT will have the same effect as TYPE DEMO.TXT

NOTE: Do not use the type command with information other than text, such as programs, as these use unusual character codes.

PRINT

If you have a printer connected to your TORCH you can print out information from files using the PRINT command. This is used in the same way as the TYPE command.

Example: PRINT INFO.TXT will make the printer print the contents of the file INFO.TXT

COPY

If you want to make a copy of a file you can use the COPY command. You can either copy a file onto another disc or make a second copy of the file on the same disc.

To copy a file

Type: COPY filename TO filename `return`

Example: To copy a file called JMB-1.LET from disc A to disc B

Type:

COPY A:JMB-1.LET TO B:JMB-1.LET `return`

Example: To make a second copy of the file JMB-1.LET on the same disc, calling the new file JMB-2.LET

Type:

COPY JMB-1.LET TO JMB-2.LET `return`

If you do not specify a disc the computer will assume you are referring to the one currently being worked on.

The COPY command is particularly useful for making back-ups of single files. Before practising the command follow the instructions on page 22 for duplicating the disc to make sure that if you do make a mistake there is no danger of losing any of your files.

Copying groups of files

The COPY command can also be used for copying groups of related files with ambiguous filenames (see page 23).

Example: If you have a disc containing the files

JMB-1.LET   RA3.LET   JMB-1.MEM
TOP.LET   and   VS.MEM

and if you wish to copy all the files called
JMB-1 to new files called JMB-2
COPY JMB-1.* TO JMB-2.* `return`

Type:

If you wish to copy all the LETters
to MEMos
COPY *.LET TO *.MEM `return`

Type:

NOTE: You must make sure when copying groups of files that you give the computer enough files to copy into. There must always be the same number of files to copy to as from.

Example: You cannot use the command

COPY LETTER.* TO LETTER.RA

as there might be more than one file called letter to put into a single file.

COPY B: TO A: will copy all files on disc B to disc A.

RENAME

You can also rename files. This is particularly useful if you wish to regroup information or put outdated information into storage and release the file names to use again.

To rename a file

Type: RENAME filename AS filename `return`

Example: If you want to rename a file called
PROG.COM and call it OLDPROG.COM

Type: RENAME PROG.COM AS OLDPROG.COM `return`

You can also rename groups of files with ambiguous filenames.

Example: If you are using the same disc as you
wished to copy

JMB-1.LET   RA3.LET   JMB-1.MEM
TOR.LET   VS.MEM

and you wish to rename all the JMB-1
files OLDJMB
RENAME JMB-1.* AS OLDJMB.* `return`

Type:

NOTE: As with the copy command you must always have the same number of new names as there are files to be renamed.

DELETE

You can also remove files from a disc once you have finished with them.

To remove a file

Type: DELETE filename `return`

Example: If you wish to wipe out a file called TEXT.RED

Type: DELETE TEXT.RED `return`

If you wish to remove a group of files with ambiguous filenames

Type: DELETE filename `return`

where there is a '*' or a '?' in the first or second part of the filename.

Example: Using the same disc as before

JMB-1.LET   RA3.LET   JMB-1.MEM
TOR.LET   VS.MEM

If you wish to delete all the files named JMB-1

Type: DELETE JMB-1.* `return`

To remove the files ending .MEM

Type: DELETE *.MEM `return`

NOTE: Once you have deleted a file you cannot recover it so be sure that you have back up copies if the text is likely to be needed at a later stage.

＊BASIC

The ＊BASIC command is used to enter the BASIC language provided on the TORCH in read only memory (ROM). This is the language used on the BBC micro computer and a guide describing it is available from your dealer.

NOTE: This BASIC cannot be used with your normal CPN files unless an Acorn Disc System ROM is fitted.

To leave BBC BASIC use the ＊CPN command (see the BBC User Guide), or press the master reset button at the back of the computer while holding down `ctrl`.

Editing cursors

To make it easier to type corrections when entering a command you can use a second cursor, called the editing cursor.

The editing cursor is an extra cursor which is produced by pressing one of the keys

move → | move ← | upper case | lower case

You can move this cursor around the screen by pressing these keys as shown on the arrows. Pressing upper-case moves it up and lower-case moves it down.

If you wish to move a letter move the cursor to the letter then

Press: move past

The cursor will move over the letter and copy it in the position of the other cursor. This, therefore, has exactly the same effect as typing that letter on the keyboard.

This is useful when you wish to copy a whole line of complicated instruction – to save you typing it out again. In this case hold down move past until you wish to stop copying.

Two other keys also have specific editing functions.

Hold: ctrl and press X means delete line.

Hold: ctrl and press U means delete the text from the memory but leave it on the screen in case you wish to refer back to it.

Appendices

Connecting a printer

Your TORCH dealer can advise you on the printer to buy and will supply appropriate connecting leads. A point to note is that parallel printers, which are cheaper, are not normally suitable for producing high quality documents such as letters.

Parallel printers also cannot be located more than a few feet from the computer.

High quality "daisy wheel" printers are usually supplied with a RS232 connector.

Parallel Printer

A parallel printer is connected through a lead to the socket marked 'printer' at the back of the TORCH. Once connected switch the printer on and it is ready for use. Look at the printer manual for details on how to select such things as page length.

Serial Printer

This is connected to the socket marked RS423 and will indicate to the computer (using the standard RTS/CTS method of signalling) that the printer is connected up.

When the TORCH is switched on, or after the master reset switch is used, the computer assumes that a parallel printer is being used. To tell it that this is not so, use the command

$$*FX 5,2$$

Before trying to use the printer.

Two printers

If a serial and a parallel printer are connected at the same time either can be selected for use by typing

*FX 5,2 for the serial printer

*FX 5,1 for the parallel printer

*FX 5,0 for no printer

WARNING: If you accidentally select either printer without plugging it in a program will attempt to print characters then stop and wait. To abandon this program without connecting the printer follow the procedure on page 18.

Troubleshooting

When you switch on your TORCH the normal sequence of events is for the fan to come on, an image to appear on the screen and the computer to emit two 'beep' noises. The message on the screen should be

```
TORCH Computer System
0A>
```

This section tells you what to do if this does not happen and what the problems probably are.

No fan whirr, no screen image, no beeps	Problem:	Circuit breaker has popped out.
	Action:	Push it in.
	Problem:	Fuse on wall plug has blown.
	Action:	Replace fuse.

| Fan whirr, no screen image, no beeps | Problem: | Internal power supply problem. |
| | Action: | See dealer. |

Fan whirr, 2 beeps, nothing on screen	Problem:	Brightness turned down.
	Action:	Turn it up at control on the back of the main unit.
	Problem:	Screen is faulty.
	Action:	See dealer.

| Fan whir, continuous burring noise, screen unclear or garbled | Problem: | Peripheral processor failed self test. |
| | Action: | See dealer. |

Fan whirr, one beep, screen displays `TORCH Computer System` but not 0A>. Screen displays `No Z80!`

| | Problem: | Z80 processor failed to communicate correctly with the peripheral processor. |
| | Action: | See dealer. |

| Fan whirr, one beep, flashing cursor appears on the screen | Problem: | Keyboard not plugged in. |
| | Action: | Check connecting lead. |

Fan whirr, two beeps, screen displays `TORCH Computer System` `0A>` but no response to keyboard

	Problem:	Keyboard faulty.
	Action:	See dealer.
	Problem:	Peripheral processor faulty.
	Action:	See dealer.

Screen messages

This section gives a list of messages which may appear on your TORCH screen, what they mean and what action you should take.

Hardware Errors

`No Z80!`

Meaning: The Z80 computer card inside the TORCH has stopped working or has become disconnected.

Action: Contact your TORCH repair centre.

`Disc A track 05`
`          hardware error XX`

(where XX =18, 0E or 0C)

Meaning: Error 18 means the disc referred to is incorrectly formatted.

Error 0E and 0C mean that the information on the disc has probably become corrupted.

Action: Check whether you need to copy any of the files from the disc and do so if necessary using the Copy command. Then discard the disc.

Make sure it is not a blank disc which has not been formatted.

`Disc A track 06 is read only!`

Meaning: The disc is write-protected.

Action: If you really wish to write to the disc remove the write-protect sticker.

`Disc A track 07 corrupt`

Meaning: The disc in the drive referred to (in this case A) is corrupt. A program may have written garbled information onto the disc, or a power failure or maltreatment may have confused the information on it.

Action: Recover the files by copying them onto a blank disc. If this problem occurs several times contact your dealer who will be able to check out your software in consultation with TORCH Computers.

Command Errors

The following are the messages which result from mistakes made when typing a command.

`Invalid * command or Break`

Meaning: A built-in command starting with * has not been recognised by the computer.

Action: Check that the command – *KEY, *FX or *BASIC – was typed correctly.

`Empty Program`

Meaning: The program you have asked for has been damaged, probably through damage to a disc.

Action: Make a new disc from a back-up copy.

`Illegal filename 'PROGRAM'`	Meaning:	The filename was not of the correct form.
		1 to 8 characters, or 1 to 8 characters. 1 to 3 characters.
	Action:	Check the file name and correct the spelling if necessary.
`File not found 'PROGRAM'`	Meaning:	The program was not found on the disc.
	Action:	Check spelling and make sure you are using the correct disc.
`Command too long`	Meaning:	A command starting with $\star$ ($\star$KEY, $\star$FX or $\star$BASIC) was too long.
	Action	Shorten it to less than 60 characters.

The following are errors which may occur when you are using built-in disc commands.

`File not found - 'FILENAME'`	Meaning:	The filename given was not present on the disc.
	Action:	Check spelling and that you are using the correct disc.
`Illegal filename 'FILENAME'`	Meaning:	The name was not of the correct form (see page 23).
	Action:	Check typing.

Errors when using COPY or RENAME commands

`Separator not 'TO'. or 'AS'.`	Meaning:	Using the Copy and Rename commands you have not typed 'TO' or 'AS'.
	Action:	Retype correctly (see pages 26 and 27).
`Filenames equivalent - ignored`	Meaning:	You have tried to copy or rename a file to itself.
	Action:	Check typing.
`Old Filename too ambiguous`	Meaning:	You have tried to rename or copy a number of files to a different number.
	Action:	Be more specific when naming the files.
`No such file - failed`	Meaning:	The source file did not exist.
	Action:	Check that you have the discs in the drive and the file you wish to copy from is there.

`Cannot create file - failed`	Meaning:	The TORCH could not create the destination file.
	Action:	Check that the file does not already exist and the disc is not full or write protected.
`Write error - failed`	Meaning:	The copying did not take place probably because the destination disc is full.
	Action:	Check for space on the destination disc.
`A:FILENAME.XXX` 　　`A:FILENAME.MMM - failed`	Meaning:	It was not possible to rename the file either because the new name already exists or the disc is write-protected.
	Action:	Delete the file if necessary or use a different name or remove the write-protect patch.

Errors when using the DIR command

`Illegal use of 'char' :` 　　　　　　`DIR abandoned`	Meaning:	A character in the DIR command is invalid.
	Action:	Check typing.
`Illegal option 'char' - ignored`	Meaning:	A number in the [option] is too high, or a character invalid.
	Action:	Use only 'L', 'P', 'S' and 0 to 31.
`User number > 31 - ignored`	Meaning:	The user number quoted inside the [options] field is too high.
	Action:	Use a valid number.

Errors when using the FORMAT command

`Format abandoned`	Meaning:	A drive other than A or B was typed when requested.
	NOTE:	this is a way of cancelling a format request.
	Action:	Type the correct drive.
`Format failed`	Meaning:	The format was unsuccessful, probably due to a bad disc.
	Action:	Repeat format and if it fails again discard the disc.

Errors using F,B,[SYSTEM and VDU commands

`Illegal number`	Meaning:	You have used a number which is too high, or not a number.
	Action:	Use a valid number.

Glossary

The following is a list of some of the terms used in this manual and other TORCH manuals.

APPLICATION PROGRAM	A program written to carry out a specific task such as word processing.
BYTE	A group of digits called bits which the computer treats as one unit.
CHARACTER	Any letter, number or symbol on the keyboard.
CURSOR	The flashing rectangle which shows the current typing position on the screen.
DATA	Information that can be processed by a computer.
DISC, DISK, DISKETTE	A floppy plastic disc used to store data.
DISC DRIVE	The unit into which you insert the discs.
FILE	A unit of storage on a disc which is named and can be accessed.
FORMATTING	Preparing a disc to receive data.
HARDWARE	Physical equipment which makes up a computer.
MEMORY	The part of the computer that can store data.
MENU	A list of the activities a program can perform.
PROGRAM	A set of logically ordered instructions which tell the computer how to perform certain tasks.
RAM	Random Access Memory, also known as read/write memory.
ROM	Read Only Memory.
SOFTWARE	The instructions used with computer hardware, such as application programs, languages and operating systems.

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User Guide