COMPUKIT® UK101

BASIC 4

INSTRUCTION MANUAL

PREMIER PUBLICATIONS
LEADERS IN UK101/OHIO SOFTWARE

BASIC 4 INSTALLATION

1. Remove the resident BASIC 4 device.

2. If you are using our mini EPROM/ROM board, installation simply involves changing the links on the board.

3. If your old BASIC 4 is in EPROM (unlikely), simply swap for the new one.

4. If, as is likely, your current BASIC 4 is a ROM (black top surface), then very carefully bend out pins 21, 20 and 13 of the new BASIC 4 EPROM. Install it unto the main hoard. Then

    a. Connect pin 21 to +5v

    b. Connect pin 20 to IC17 pin 4

    c. Connect pin 18 to Ov (ground).

Check all connections then power up the system. BASIC 4 automatically initialises BASIC 5 if resident.

BASIC 4 EXTENDED LOAD AND SAVE

The new BASIC 4 provides extended LOAD and SAVE commands. It speeds up loading and saving of BASIC programs. Even with the standard 300 baud cassette system, a saving of around 33% is achieved.

BASIC 4 will work with fast cassette interfaces and has been tested at 4800 baud with complete success.

When you have installed BASIC 4 (see separate instructions), RESET C will produce the normal "Memory Size" prompt. However, the terminal width option and all the power up message has had to go to squeeze in all the BASIC 4 facilities. To adjust the terminal width either POKEl5,<width> or, if you have CEGMON, POKE546,<width>. (Don't POKE 15 if you have CEGMON or the full—screen editor will get confused!). If you normally answer Terminal Width? with RETURN, no action is necessary. BASIC 4 is an integral part of the normal BASIC 4 chip, so it does not need initialising - it is there all the time from power up.

PROGRAM NAMES
At high transfer speeds. it is desirable to be able to name programs when they are saved. This is an integral feature of BASIC 4. Program characters may be up to 32 characters long, although use of very long titles makes them tedious to type in when reloading!

LOAD/SAVE commands summary

SAVE
same as normal SAVE

SAVE"<program name>"
saves the program to tape with the 'program name' specified. The program will not appear on-screen while it is being saved, neither should LIST be used after SAVE"<program name>".

SAVE"
saves current program in a format designed to prevent illegal use by another person. See note 4

LOAD
same as normal LOAD

LOAD?"
Compares the program on tape with that currently in the computer's memory. It displays an error message on finding a difference. The resident BASIC program is retained during LOAD?". This command is used to verify a tape's contents directly after recording - use it before you NEW the program. If an error shows up, record the program again. If an error still shows up, use a lower baud rate. If you are already down to 300 baud check your tape deck and tape quality.

LOAD"<program name>

causes the current program to be NEWed and loads but does not run, the named program from tape. Note there should be NO quote marks after the program title.
If a program other than the required one is encountered, its name will appear on-screen, but it will not be loaded.

LOAD"<program name>"

loads the named program and automatically runs it. Note that to auto-run there must be quote marks at the end of the program name. If a program other than the required one is encountered, its name will appear on-screen, but it will not be loaded.

LOAD""

loads and runs the first program found. A useful command if you have forgotten the program name.

LOAD"

loads but does not auto—run the first program found.

OLD - program crash recovery

This very useful utility will enable you to recover from ALMOST any inadvertent stray pokes you may have made to Page Zero, one or two. OLD will not help at all in circumstances where your POKES have gone into BASIC workspace and turned your program into self-modified code!

To attempt a recovery, simply RESET, cold start, answer Memory Size with OLD, then press RETURN. How try listing your program - if it lists all the way through, save it to tape then try running it. If it won't run, RESET, cold start, then re-load the program - this should run.

Program 'crashes' usually occur where the program is poking to screen with a variable which has been either not assigned to the 53248+ area of memory or where the relevant variable has been inadvertently been zeroed. POKEing then occurs into BASIC's scratchpad area, usually with disastrous results. OLD should solve almost all these crashes.

CREATING A TAPE DIRECTORY

BASIC 4 will only load the named program it LOAD"<program name>" is used. This provides a very convenient way of creating a tape index for your program library. Proceed as follows:-

Ensure the relevant cassette is fully rewound to the beginning, then zero the tape counter. Now type LOAD"rubbish" (always supposing you do not have a program called that!)

As each of your program titles appears on-screen, note down the counter number, preferably on the cassette case liner. From then on, accessing the contents of that tape simply requires you to wind to approximately the start number, type in the file name and load.

NOTES

1. when loading a program, ensure that you have sufficient memory for it!

2. If the message

   BREAK
   OK

   occurs during a load, an error has occurred while performing a LOAD or LOAD" command. Try loading the program again.

3. All LOAD commands may be halted by pressing the space bar. The OK prompt will be displayed.

4. SAVE" saves a program without a file name. These programs can only be loaded using the syntax LOAD".

5. Programs cannot be appended using BASIC 4. If you have a program which you want to add to a resident BASIC program from cassette, it should be saved using the normal SAVE command and reloaded using LOAD.

6. Use of higher than 300 baud rate with reliable results needs a stable, good quality cassette recorder plus high quality tape. Use of long tapes - ie C60, is not recommended since cheaper ones tend to have a high tape-drag factor in their housings. This produces an unstable replay signal which is insignificant at 300 baud, but at 1200 upwards becomes a major problem.

7. Note that BASIC 4 and the normal LOAD and SAVE commands cannot be mixed. You cannot use LOAD to load a program saved in BASIC 4 format, neither can you LOAD"<program name>" a program saved with the normal SAVE command.