# protek
COMPUTING LIMITED

SINCLAIR ZX SPECTRUM
SWITCHABLE JOYSTICK INTERFACE

Using the Protek switchable joystick interface you can play joystick compatible games for the Sinclair ZX Spectrum.

Any switch type joystick with a 9 pin connector can be used—the Spectravideo product is particularly recommended.

SINCLAIR ZX SPECTRUM
SWITCHABLE JOYSTICK INTERFACE

TONGUE

MIC

9V DC

SLOT

PROTEK INTERFACE

ZX SPECTRUM

JOYSTICK CONNECTION

Protek
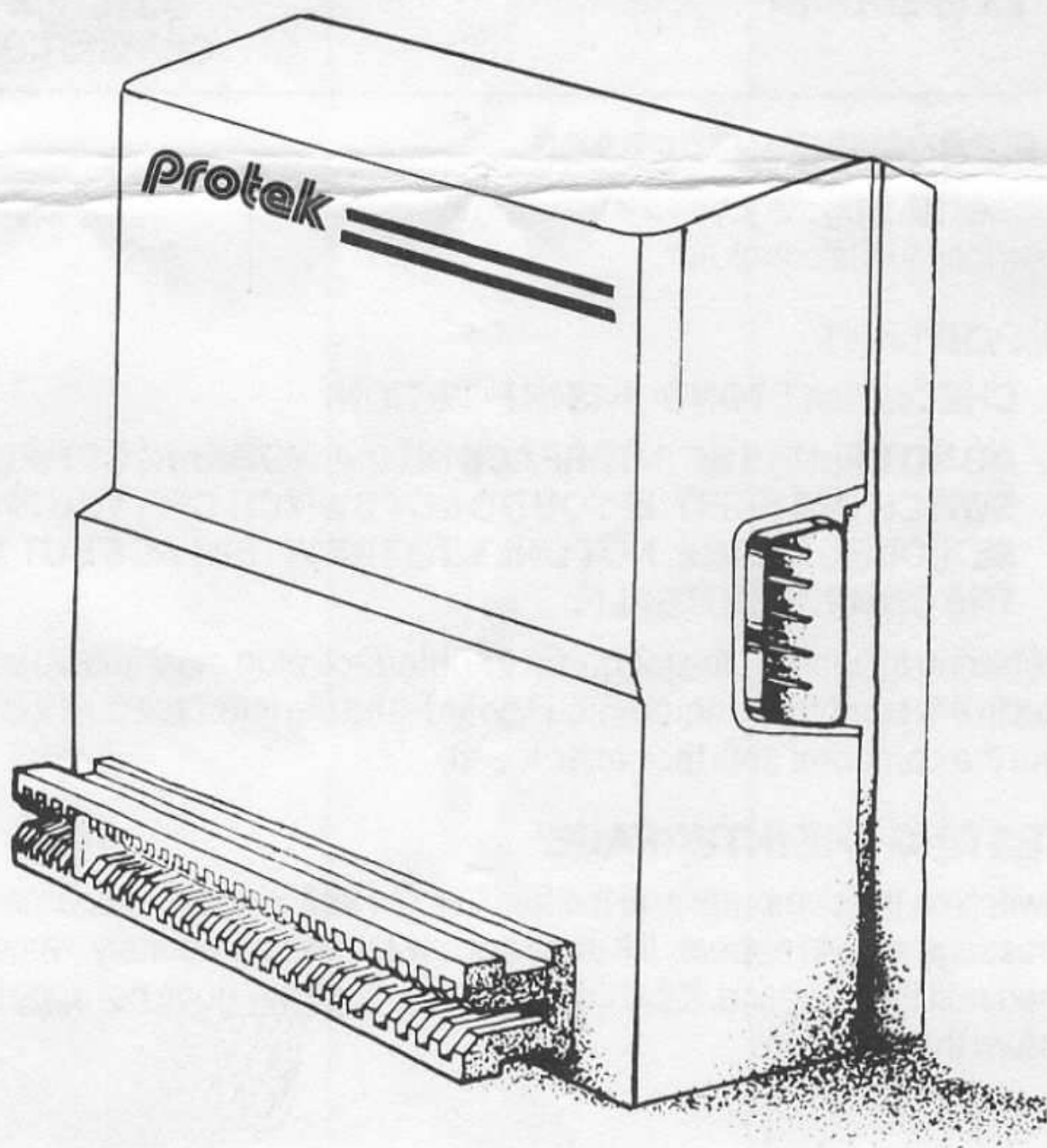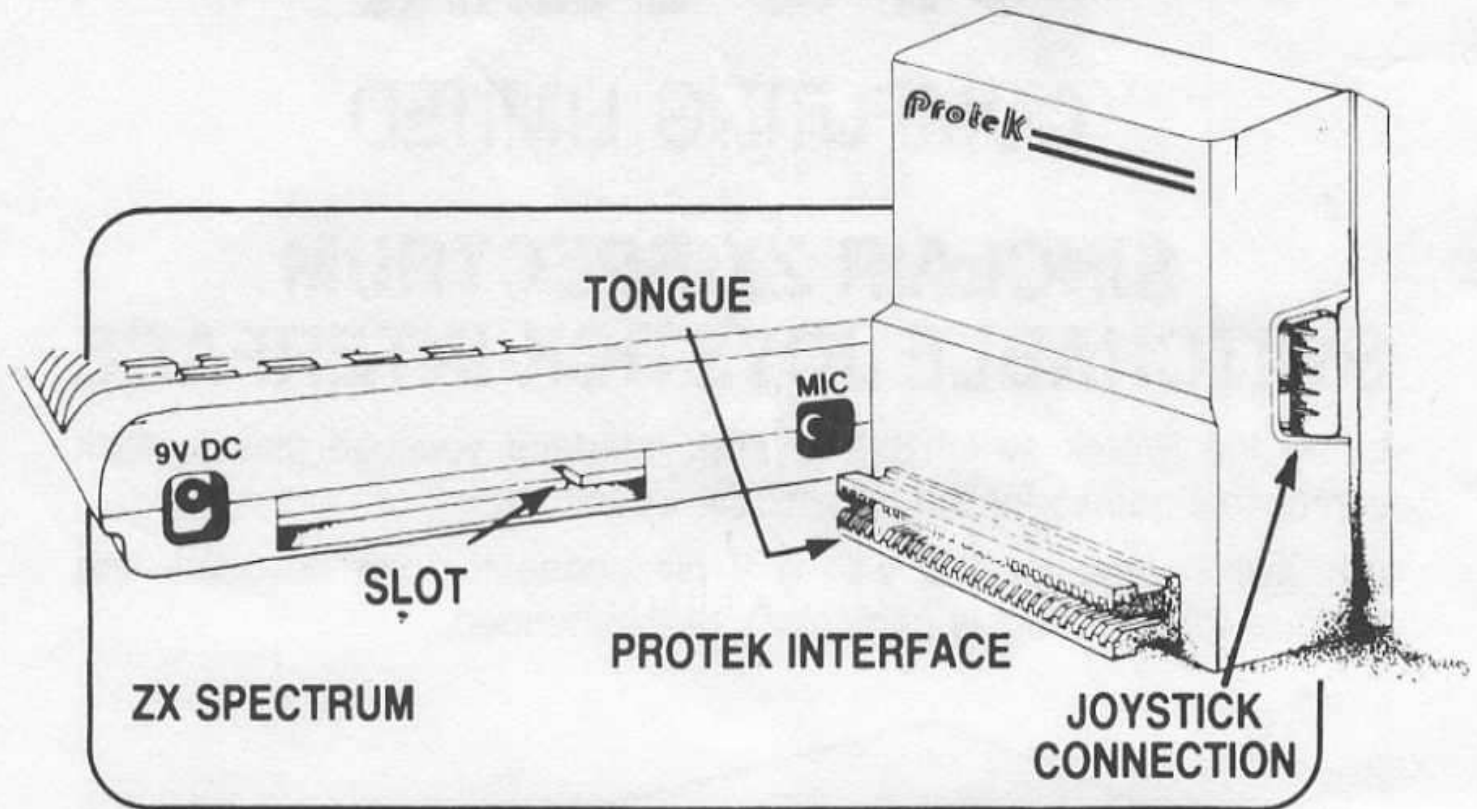
FITTING THE INTERFACE

It is best to plug the joystick into the interface first before attaching the interface to the computer.

IMPORTANT

1. **CHECK THAT TONGUE IS IN POSITION.**
2. **DO NOT PLUG THE INTERFACE INTO A WORKING COMPUTER, SWITCH OFF FIRST. IF YOU DO NOT SWITCH OFF, YOU RISK SERIOUS DAMAGE, NOT ONLY TO THE INTERFACE BUT TO THE COMPUTER ITSELF.**

Referring to figure 1, the tongue in the interface plug must line up with the slot in the computer printed circuit board, and the interface pushed firmly into the computer until the cases touch.

TESTING THE INTERFACE

Switch on the computer and the familiar © 1982 Sinclair Research Ltd. message should appear. If it does not, switch off immediately, remove then refit the interface. If the copyright message still does not appear, return the interface.

If the message appears normally, push the switch into position 1, the cursor joystick position.

Pushing the joystick Forward should display a 7 on the screen
Pushing the joystick Back should display a 6 on the screen
Pushing the joystick Left should display a 5 on the screen
Pushing the joystick Right should display a 8 on the screen
Pushing the joystick Fire Button should display a 0 on the screen

Now push the switch into position 3, the Sinclair Interface 2 position.

Pushing the joystick Forward should display a 9 on the screen
Pushing the joystick Back should display a 8 on the screen
Pushing the joystick Left should display a 6 on the screen
Pushing the joystick Right should display a 7 on the screen
Pushing the joystick Fire Button should display a 0 on the screen

Push the switch into position 2, where it is equivalent to the Kempston Joystick Interface. A small program is needed to test this option.

```
10   LET a = IN31
20   IF a = O THEN GO TO 10
30   PRINT a;" ";
40   GO TO 10
```

Note: IN is the extended—shifted key I.
There is one space between the quotes in line 30.
To stop the program press SHIFT and SPACE together.

Pushing the joystick Forward displays a 8 on the screen
Pushing the joystick Back displays a 4 on the screen
Pushing the joystick Left displays a 2 on the screen
Pushing the joystick Right displays a 1 on the screen
Pushing the joystick Fire Button displays a 16 on the screen

The Spectrum auto repeat facility will produce multiple copies of these numbers on the screen.
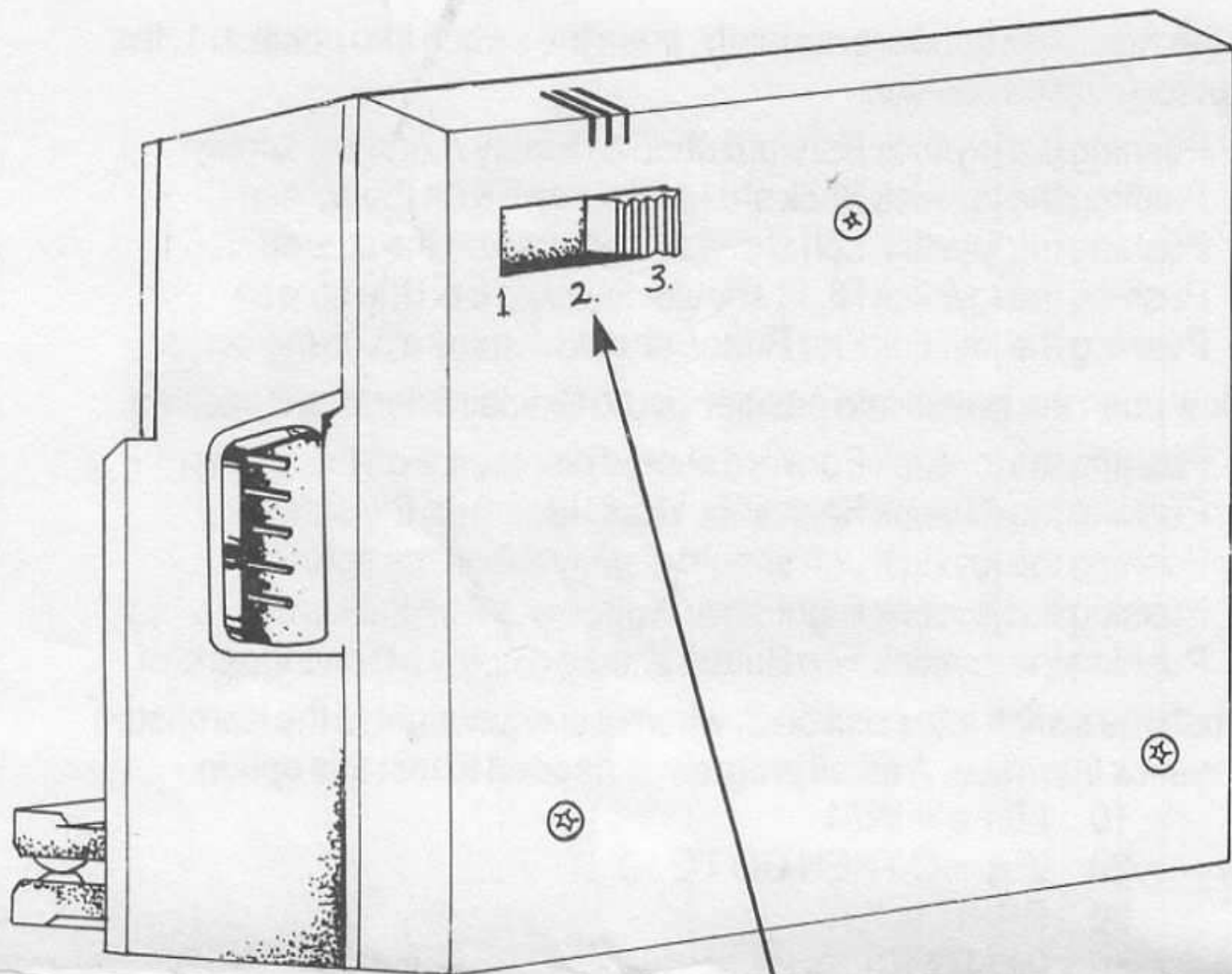
USING THE INTERFACE

You can now use your Joystick to control games on the ZX Spectrum.
Read the program instructions and note the Joystick Options available.
Pick one option and move the selection switch to the appropriate position.

1. Cursor, Protek or AGF Types
2. Kempston Type
3. Sinclair Interface 2 Types

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You can now load the game and proceed as per the program instructions. If you find that you have picked the wrong option moving the switch whilst the program is running is perfectly safe.

Note: In position 1 and 3, the interface disarms parts of the top row of keys on the keyboard. If you need to use these keys, switch the interface into position 2, type in your requirement, and then switch the interface into the required position. Remember switching between options can be safely accomplished even if the computer is switched on and a program is running.

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