



User Instructions

Retro Computers Limited

The Sinclair ZX Spectrum Vega

Manufactured for Retro Computers Limited, Luton, England, by SMS Electronics Ltd, Beeston, England.

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C The product Complies with all Relevant European directives (2004/108/EC, 2006/95/EC) when installed and used in accordance with the user manual. This product can only be serviced and repaired by qualified personnel. The product has no user serviceable parts.

This product falls under the Waste Electrical and Electronic Equipment Directive (WEEE Directive) (2012/19/EU). This product contains items that are required to be recycled. This unit should not be placed in land fill. Please return the unit for disposal to an authorised dealer or return directly to the manufacturer of this product.

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Second edition

Contents

1. Setting up your Vega	2
Connecting to a television composite video input	2
Connecting to a television SCART socket	3
Adjusting your television settings	3
Switching between UK and US compatibility	3
2. Getting to know your Vega	4
3. Choosing a game to play	5
4. Playing a game	6
Games with many actions	6
Entering text on the Vega	6
5. Vega in-game functions	7
The options menu	7
Displaying game controls and other help	7
Pausing a game	7
Leaving a game and returning to the main menu	7
Saving the current game	8
Restoring a previously saved game	8
The virtual keyboard	8
6. Loading additional games	9
Playing games stored on a micro SD card	9
7. Upgrading the Vega software	10
Download and install a software upgrade	10
8. The Roll of Honour	11
9. Safety	11
10. Troubleshooting	12

1. Setting up your Vega

Connecting to a television composite video input

The Vega comes supplied with a colour coded audio/video cable and a black USB power cable.



Before connecting, check that the TV is turned off.

- 1. Connect each plug to the TV composite video and audio sockets matching the plug's colour (yellow, white and red), as shown.
- 2. Connect the USB power cable to the TV USB socket, if there is one, or to another USB power source, such as a mobile phone charger.

Once the Vega is connected to the TV, turn on the TV (and USB power source, if used) and choose the appropriate TV input source. The power indicator on the front left of the Vega should turn green and a picture should be displayed on your TV.

Note. Some TV USB sockets will not supply enough power for the Vega. This will prevent the Vega from operating correctly, or may cause a hum to be heard from the TV speaker, or bands to appear across the screen. In this case, please use a separate USB power source capable of supplying a minimum of 300mA, such as a mobile phone charger.

Connecting to a television SCART socket

The Vega may optionally be connected to your TV through one of it's SCART sockets.



To connect to this socket you require an *RCA composite video to SCART adapter*. The Vega's yellow, white and red plugs are connected to the adapter, which is then plugged into the TV SCART socket. For the remainder of the setup, follow from step 2 on page 2, *Connecting to a television composite video input*.

Adjusting your television settings

Some modern TVs digitally filter and process the TV picture to improve sharpness and quality. This may slightly smear the edges of the retro graphics produced by products such as the Vega. If necessary, please refer to your TV owners manual for instructions on how to disable this filtering, if possible.

Switching between UK and US compatibility

By default the Vega starts in PAL television mode, common in the United Kingdom. To use the Vega on an NTSC television, common in the United States, press and hold button [1] while you switch on the power to the Vega, or while you press the reset button.

2. Getting to know your Vega

The Vega games console is equipped with four red directional buttons and seven "action" buttons.



- The directional buttons, also known as the D-pad, provide up to eight directions of movement.
- The action buttons are divided into two sets. There are four main buttons, labeled Fire [F], Select [S], [1] and [2]; and there are three auxiliary action buttons labeled [A], [B] and [C].
- Button [**M**] activates an in-game control panel which provides access to Vega features while you are playing a game. See page 7, *Vega in-game functions*.
- The reset button [**R**] resets the Vega, and is equivalent to switching the Vega off and back on.

3. Choosing a game to play

- Ensure you are in the main menu. When you first switch on your Vega, this is the initial screen that will be displayed.
- This menu lists games with names that start with a number character. Now press the right button to bring up the games beginning with the letter "A". The games are now listed alphabetically, with a separate list for each first letter in the game's title. Use **left** and **right** on the D-pad to move between these lists, **up** and **down** to find the game you wish to play.
- When you have made your selection, press the select [S] button to launch the game.
- On launching a game, the Vega will first display a help screen, showing the actions assigned to the Vega buttons for that particular game and sometimes other help. You may refer back to this help screen at any time by selecting **Help** from the ingame control panel. See page 7, *Displaying game controls and other help*.
- Press any button to proceed to the game, which typically will present you with a menu or title screen (although please note that each game is different in this respect).

4. Playing a game

The Vega will have configured the select [S] button to begin the selected game when pressed, so that is usually all that is required to begin, unless the help screen instructions indicate otherwise.

For each game, the keys that would have been used on the ZX Spectrum have been allocated to a button on the Vega. These are shown on an information screen when you first select a game, and can be reviewed at any time by selecting **Help** from the in-game control panel. See page 7, *Displaying game controls and other help*.

Games with many actions

Some of the more complex games, such as flight simulators, may require more functions than are available with just 11 buttons. In such games the Vega will assign two actions to some buttons, and allow you to switch quickly between these two - primary and secondary assignments.

- When a game starts, the primary control assignment is selected.
- To switch to the secondary assignment, briefly press button [M].
- To switch back to the main control assignment, briefly press button [**M**] again.

Entering text on the Vega

Some games require the user to type text at various points, for example conversational adventure games or those with high-score tables. As the Vega does not have a physical keyboard, it provides an easy to use on-screen alternative called a "virtual keyboard". This feature is accessed through the Vega's in-game control panel. See page 8, *The virtual keyboard.*

5. Vega in-game functions

The Vega provides a number of helpful features and functions to assist with the playing of a game. These functions are engaged by pressing and holding the menu button $[\mathbf{M}]$ for a moment, which activates an onscreen control panel.

The options menu

Activate the control panel by pressing and holding the menu button [M] for a moment. If the panel is showing the virtual keyboard, press button [C] to switch to the options menu. This gives access to the following features:

- Help
- Pause game
- Save game
- Restore game
- Exit game

Displaying game controls and other help

Game controls and help can be displayed by pressing button [A] while at the options menu. If the control panel is not currently active, the button sequence [M][A] will quickly display the game controls and other help.

Pausing a game

Use the D-pad to choose **Pause game**, and press button **[S]** to select. The control panel will close, and the game will pause. Press any button to cancel the pause mode and return to game play.

Leaving a game and returning to the main menu

Use the D-pad to select **Exit game** and press the select button [S]. The control panel will close, and the Vega will return to the main game selection menu.

Saving the current game

Use the D-pad to select **Save game** and press the select button [**S**]. Insert a micro SD card into the Vega when prompted, if you have not already done so, and press button [**A**] to save your current point in the game. Only one save point can be made per game on a single SD card.

Restoring a previously saved game

Use the D-pad to select **Restore game** and press the select button [S]. Insert a micro SD card into the Vega when prompted, if you have not already done so, and press button [A]. This will restore the game to the point at which the save was made.

The virtual keyboard

To access the virtual keyboard, activate the control panel by pressing and holding the menu button [M] for a moment. If the panel is showing the options menu, press button [C] to switch to the virtual keyboard.

The virtual keyboard is represented graphically within the panel as a diagram of the Vega controls. Pressing **up** and **down** on the D-pad changes the character selection to letters, digits or symbols. Left or **right** on the D-pad navigates through the available characters, and pressing a main action button selects the character.

Button [A] deletes a character, button [B] replicates the ZX Spectrum 'Enter' key. The 'space' character is located after Z and before A in the letters set.

6. Loading additional games

In addition to the 1000 games supplied, you might wish to play other ZX Spectrum games on your Vega. These may be downloaded from various sources on the internet, provided that the site gives you the legal right to do so. From time to time additional games will be made available for download from the ZX Spectrum Vega website http://www.zxvega.co.uk

To play additional games on your Vega, they must be stored on a micro SD card. A micro SD card is a type of removable memory card used to store information. Physically it is the smallest size SD card available, and requires an adapter so that they will fit into a slot provided on a computer for standard SD cards. Such adapters are often supplied with the micro SD card when purchased.

Playing games stored on a micro SD card

- 1. Using a computer, download the game files you wish to play, and store them on a micro SD card. The Vega supports .tap, .z80 and .szx file formats only.
- 2. Insert the SD card into the Vega, making sure that it is fully inserted into the slot.
- 3. The Vega will detect the SD card and allow you to access the games on the SD card by pressing button [A].
- 4. On pressing button [A], Vega will list the games it finds on the SD card in the game menu, replacing the built-in games.
- 5. If you have folders on your SD card, on pressing button [A] the Vega will ask you which folder you wish to scan for games. It is recommended that you store your games in folders for easy access as there is a limit to the total number of files the Vega can load at once.
- 6. To switch back to the built-in games, press button [A].

While the Vega is accessing the SD card, the power indicator will flash. You should not remove the SD card while the indicator is flashing. In addition to providing a virtual keyboard, the Vega also emulates the Kempston joystick. To quickly configure a game loaded from an SD card for play on the Vega, use the virtual keyboard to navigate the game's options, and select the game's Kempston joystick mode, if supported.

Further instructions for configuring additional games for play on the Vega can be found on the ZX Spectrum Vega website:

http://www.zxvega.co.uk/support

7. Upgrading the Vega software

We are constantly improving the Vega and will regularly provide software upgrades that introduce new features or correct issues. We recommend that you keep your Vega up to date with the latest software.

Download and install a software upgrade

- 1. Visit the ZX Spectrum Vega website on a computer and download the latest upgrade file onto a micro SD card. http://www.zxvega.co.uk/support/upgrade Save the file to the micro SD Card's top-level folder, otherwise the Vega will not be able to locate the software upgrade
- 2. Insert the micro SD card into the Vega.
- 3. Turn on the power to the Vega, or reset if already powered.
- 4. The Vega will detect the software upgrade and ask you whether you want to proceed with the upgrade or not.
- 5. Press button [A] to accept the upgrade, or [C] to cancel the upgrade and continue to the Vega main menu.
- 6. If button [A] is pressed, the Vega will begin it's upgrade process, and display a progress indication on the screen.

DO NOT turn off the Vega's power, reset the Vega or turn off the TV until the upgrade is complete. The Vega will turn off and on automatically after completing the software upgrade.

8. The Roll of Honour

Our "Roll of Honour" recognises the contributions of those who supported the development and launch of the Vega by making a pledge to our Indiegogo crowdfunding campaign. The Roll of Honour also recognises the support of all those games rights owners who granted permission for their Sinclair ZX Spectrum games to be incorporated in the Vega. The Roll of Honour is accessed by following the on-screen prompt, after reset, to press button [**2**].

9. Safety

Handling and use

- Do not connect cables while the system is turned on (power indicator green).
- Only use a certified USB power supply with Limited Power Source (LPS) output to power the Vega.
- Keep the Vega console and cables out of the reach of small children.
- Do not place the Vega on the floor or in a place where it may cause someone to trip or stumble.
- Do not turn off the system while data is being saved on or loaded from an SD card.
- Do not expose the Vega to dust, smoke or steam. Do not place the Vega in an area subject to excessive dust or cigarette smoke. Dust build-up or cigarette smoke residue on the internal components, such as the key switches and SD card socket, may cause the system to malfunction.
- Do not expose the Vega to high temperatures, high humidity or direct sunlight.
- Do not touch the Vega or connected cables during an electrical storm.
- Do not use the Vega near water.
- Do not allow liquid, small particles or other foreign objects to get into the Vega.

- Do not touch the connectors of the Vega.
- Use in a well-lit area and keep a safe distance from the TV screen.
- Avoid prolonged use of the Vega. Take a 15-minute break for each hour of play.
- Avoid playing when you are tired or need sleep.
- Stop using the system immediately if you begin to feel tired or if you experience discomfort or pain in your hands or arms while operating the Vega.

Do Not Attempt Repairs

Do not attempt to take apart, open, service, or modify the Vega games console, as doing so could damage your Vega. Any evidence of an attempt to open and or modify the Vega, including any peeling, or removal of any of the labels will, for safety reasons, void the Limited Warranty and render the Vega ineligible for authorised repair.

Problem	Possible cause	Solution
The power indicator does not light when powering from the TV USB socket.	The TV is not turned on.	Turn on the TV
	The TV is turned on, but is not providing enough power.	Power the Vega from another USB power source, such as a mobile phone charger.
The power indicator does not light when powering from a USB power supply.	The power supply does not provide enough current or is not switched on.	Make sure the power supply is turned on and can provide 300mA of current.

10. Troubleshooting

I can hear a hum from the TV speakers.	The Vega is powered from the TV USB socket.	Try powering the Vega from another USB power supply.
I occasionally see darker stripes across the TV screen.		
Graphics are slightly smeared at the edges.	This is normal and a result of your TV digitally filtering the picture to improve quality. You may be able to disable this feature.	Refer to your TV owners manual to see if there are instructions on how to disable digital filtering and processing.
The TV picture is slightly distorted.	The Vega may not have reset properly.	Press and hold the reset button [R] for a moment.
The TV picture is black and white or is very unstable.	The Vega is in US compatibility mode when used with a UK/EU PAL TV.	Do not press button [1] when turning on or resetting the Vega.
	The Vega is in UK compatibility mode when used with a US NTSC TV.	Enter the US compatible mode by holding button [1] when turning on or resetting the Vega.

If you are having any problems after you set up your Vega we recommend that you first visit the support page on our website: http://www.zxvega.co.uk/support or scan the QR Code on the base of your Vega.

If you find a problem when playing any of the games please email us with the details, at:

support@retro-computers.co.uk

If your Vega appears to have developed an electrical fault please email SMS Electronics Ltd, at:

retrorepairs@smselectronics.co.uk

In both instances, please include your name, a brief explanation of the problem, and your telephone number (if you are willing to accept calls regarding your report).

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www.retro-computers.co.uk www.zxvega.co.uk